THE

HISTORY OF PHILOSOPHY.

VOL. I.

Works by the same Author.

ARISTOTLE: a Chapter from the History of Science, including Analyses of Aristotle's Scientific Writings. 1864.

The LIFE of GOETHE. New Edition, partly rewritten. 1863.

STUDIES in ANIMAL LIFE. With Illustrations. 1863.

SEASIDE STUDIES at ILFRACOMBE, TENBY, the SCILLY ISLES, and JERSEY. With Illustrations. Second Edition. 1860.

The PHYSIOLOGY of COMMON LIFE. With Illustrations. 2 vols. 1859.

THE

HISTORY OF PHILOSOPHY

FROM THALES TO COMTE.

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BY GEORGE HENRY LEWES.

THIRD EDITION.

IN TWO VOLS.

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PREFACE.

BY A SLIGHT CHANGE in the title this edition is separated from its predecessors, as if it were a new work, which indeed in many respects it is. The first edition appeared in 1845–6 in four pocket-volumes; addressed to the general public rather than to well-read students, it had no pretensions to the completeness or erudition displayed in many other Histories, being little more than a rapid survey of the course of metaphysical speculation, written with the avowed purpose of dissuading the youth of England from wasting energy on insoluble problems, and relying on a false Method. With this object of turning the mind from Metaphysics to Positive Philosophy, it employed History as an instrument of Criticism to disclose the successive failures of successive schools.

In 1857, after a sale of several thousand copies of the stereotyped edition, the Library Edition, in one volume octavo, was prepared with a view of rendering the book more acceptable to students. A graver, fuller treatment of various portions, some important additions, and considerable alterations in the style were found necessary, but no change in purpose or doctrine.

In the edition now issued my readers of twenty years ago will hardly recognise the 'Biographical History of Philosophy,' so considerable have been the alterations and enlargements. They will see, indeed, the spirit and the purpose still unchanged; but it will be like recognising in an iron-grey citizen the features of the third-form boy. I adhered to the Positive Philosophy in 1845, and I adhere to it still. But much that was dim to me then has become clear now, much that was conviction then has ceased to be conviction now; my estimates of men and theories have altered in the course of years. The reader will doubtless feel, even more than I can feel, the want of unity in various parts of this product of changing years. I have done my best to lessen the discordance between 1845 and 1867, and would gladly have rewritten the whole had health permitted such a task.

Among the more important additions the following may be specified. In the PROLEGOMENA, replacing the original Introduction, are discussed: What is Philosophy? —The Objective and Subjective Methods—The Test of Truth—Some Infirmities of Thought—Necessary Truths. These subjects threatened to expand into a volume, and I was forced to omit much that I had prepared. The chapters on PLATO and ARISTOTLE have been rewritten; the former with large assistance from Mr. Grote's exhaustive work; the latter with reproductions from a monograph of my own. The accounts of SCHOLASTICISM, ARABIAN PHILOSOPHY, and ROGER BACON, are entirely new. The chapters on FRANCIS BACON, DESCARTES, LEIBNITZ, CONDILLAC, and HARTLEY have been rewritten. Several new biographical details are given in the account of SPINOZA, which has also been rewritten. KANT has been restudied, and the exposition and criticism of his doctrines are new. The chapter on GALL has also been rewritten with, I believe, a more decisive presentation of his claims, and a more decisive exposition of his imperfections. I had hoped to rewrite the chapter on HEGEL, especially to answer the challenge of Mr. Stirling's work ('The Secret of Hegel'), but my health gave way, and as my estimate of Hegel's value was unchanged I shrank from the labour.

With regard to Auguste Comte it has been a source of great regret to me that a larger space was not at my disposal; the more so as he is now the thinker of all others about whom the greatest curiosity is manifested. What I have attempted is not such a detailed exposition as would flatter the incurious indolence of men who love to talk confidently upon second-hand knowledge, but such general indications of the Positive Philosophy as will enable the student to appreciate its drift and importance, and will guide him in the understanding of Comte's writings. I am often asked to recommend some 'brief account of the system,' by those who wish to profit by Comte's labours (or perhaps only to talk knowingly of them), yet shirk the labour of reading the works which they profess to consider of importance. My answer is: study the *Philosophie Positive* for yourself, study it patiently, give it the time and thought you would not grudge to a new science or a new language, and then whether you accept or reject the system you will find your mental horizon irrevocably enlarged. 'But six stout volumes!' exclaims the hesitating aspirant. Well, yes, six volumes requiring to be meditated as well as read: I admit that they 'give pause' in this busy, bustling world of ours; but if you reflect how willingly six separate volumes of Philosophy would be read in the course of the year, the undertaking seems less formidable. You would not think of giving the necessary time and labour unless you had some previous conception of the result being worth the price; and no one who considers the immense importance of a Doctrine which will give unity to his life, would hesitate to pay a far higher price than that of a year's study. It is to place before the student this conception of the result that I have chiefly shaped my exposition of the aims and means of the Positive Philosophy.

THE PRIORY: *May* 1867.

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PROLEGOMENA.

I. WHAT IS PHILOSOPHY?
II. THE OBJECTIVE AND SUBJECTIVE METHODS.
III. THE TEST OF TRUTH.
IV. SOME INFIRMITIES OF THOUGHT.
V. NECESSARY TRUTHS.

Meine Absicht ist, Alle diejenigen, so es werth finden, sich mit Metaphysik zu beschäftigen, zu überzeugen: dass es unumgänglich nothwendig sei, ihre Arbeit vor der Hand auszusetzen, alles bisher Geschehene als ungeschehen anzusehen und vor allen Dingen zuerst die Frage aufzuwerfen: 'ob auch so etwas, als Metaphysik, überall nur möglich sei?'—Kant: *Prolegomena zu einer jeden künftigen Metaphysik.*

Gelänge es mir, mit meiner Darstellung der Philosophie auch nur eine Seele abzustreiten, die sich mit ihr in jene dunkle Tiefe der Betrachtung verloren geben will, wo Alles nur Heulen und Zähnklappen und jeder wider den Andern ist, so würde ich schon glauben, etwas geleistet zu haben.—Fechner: *Ueber die physikalische und philosophische Atomenlehre.*

Der Mensch ist nicht geboren, die Probleme der Welt zu lösen, wohl aber zu suchen, wo das Problem angeht, und sich sodann in der Grenze des Begreiflichen zu halten.—Goethe.

I. WHAT IS PHILOSOPHY?

§ 1. Theology, Philosophy, and Science constitute our spiritual triumvirate. The limits of their several dominions have been insensibly shifting, so that at various epochs in History they have been of very varied importance. For centuries the predominance of Theology was absolute and undisputed. Philosophy, meanwhile, grew apace, till at last it was enabled to assert an independent position; and while these two rivals struggled for supremacy, Science was also quietly and obscurely feeling its way to independence.

§ 2. The office of Theology is now generally recognised as distinct from that of Philosophy and from that of Science. Its ancient claim to authority over all regions of inquiry has long been felt to be untenable, and has been frankly relinquished. Although claiming to hold the keys of the highest Truth, it nevertheless no longer pretends to decide upon the lower, but confesses its inability to furnish Research with effective Methods, or Knowledge with available data. It restricts itself to the region of Faith, and leaves to Philosophy and Science the region of Inquiry. Its main province is the province of Feeling; its office is the *systematisation of our religious conceptions.*

This is the office not of one Theology, but of all. No matter what other functions the various Theologies may assume, they invariably assume this, and give it pre-eminence. It is thus not only their common characteristic, but also their highest characteristic; and now that the course of human evolution has detached both Philosophy and Science from Theology, this systematisation remains its sole function.

§ 3. The office of Science is distinct. It may be defined as the *systematisation of our knowledge of the order of phenomena considered as phenomena.* It co-ordinates common knowledge. It explains the order of phenomena, by bringing them under their respective laws of co-existence and succession, classing particular facts under general conceptions.

§ 4. The office of Philosophy is again distinct from these. It is *the systematisation of the conceptions furnished by Theology and Science.* It is ἐπιστήμη ἐπιστημῶν. As Science is the systematisation of the various generalities reached through particulars, so Philosophy is the systematisation of the generalities of generalities. In other words, Science furnishes the Knowledge, and Philosophy the Doctrine.

Each distinct science embraces a distinct province of knowledge. Mathematics treats of magnitudes, and disregards all other relations; Physics and Chemistry concern themselves with the changes of inorganic bodies, leaving all vital relations to Biology; Sociology concerns itself with the relations of human beings among each other, and with their relations to human beings in the past and in the future. But Philosophy has no distinct province of knowledge: it embraces the whole world of thought: it stands in the same relation to the various sciences as Geography stands to Topography. All the sciences subserve its purpose, furnish its life-blood. It systematises their results, co-ordinating their truths into a body of Doctrine.

Thus, while Theology claims to furnish a system of religious conceptions, and Science to furnish conceptions of the order of the world, Philosophy, detaching their widest conceptions from both, furnishes a Doctrine which contains an *explanation of the world and of human destiny.*

Although this may appear a novel definition, it will, on examination, be found to characterise the persistent function which in all times Philosophy has exercised. Moreover, it will be found applicable in special cases, such as the philosophy of Science, the philosophy of Religion, the philosophy of History, or the philosophy of Art. Thus, given a science with its generalities laboriously ascertained, the philosophy of that science will be the co-ordination of its highest truths, the methods by which those truths were reached, and the relation which both these bear to the truths and methods of other sciences. I formerly defined Philosophy 'an attempt to explain the phenomena of the universe.' This is too vague, and fails to mark the point of separation from Science and Theology; but though vague, it expresses what has been the unconscious and persistent effort of philosophical speculation.

§ 5. Such is the relative position of each of the three great spiritual powers at the present time. These positions were not always thus sharply defined, but the history of thought exhibits a continuous development in these directions. Theology at first was absolute and autocratic, not only furnishing religious doctrine, but dictating generalities to Philosophy, and explanations of all but the commonest phenomena to Science. Philosophy served as a handmaid to Theology, until she grew strong enough to think for herself. Science kept timidly aloof from all questions on which Theology had pronounced, and submitted to a peremptory order to be silent when her conclusions were unacceptable. Fortunately for Humanity, this creeping servitude was incompatible with the continued exercise of reason. As discoveries extended, as more and more phenomena were satisfactorily reduced to order, the widening reach of Inquiry embraced problem after problem, until now all the facts within human kin are assumed to be reducible to order on the scientific Method. With the growing strength came a growing courage, and timidity gave place to a proud self-reliance. Theology was first quietly yet firmly excluded from Cosmology, its explanations of the world being set aside as myths; then it was excluded from Biology; and now even Sociology is claimed as amenable to scientific Methods, because all social phenomena are seen to be under the dominion of law. History shows a curious reversal of the principle of accommodation. Just as Science was formerly compelled to accommodate its conclusions to Theology, no matter at what cost of consistency, with what sophistical excuses, so Theology is now compelled to accommodate its dicta to the conclusions of Science, by utterly distorting the meaning of words. After having for centuries pursued its researches under the denunciation of Theology, and under the burden of a fear, terrible to delicate consciences, of approaching heresy when it was seeking truth, Science has at length ceased its timorous and futile efforts to reconcile its conclusions with anything but its own principles.* The problem is no longer: Given a doctrine of indisputable authority, how to reconcile the conclusions of Experience with its dicta; the problem is: Given certain indisputable conclusions of Experience, how to reconcile the dicta of an ancient doctrine with these irresistible conclusions.†

§ 6. The conflict was inevitable and was foreseen from the first. Inevitable, because the two powers are characterised by two different Methods, that of Theology being the Subjective, that of Science the Objective. These Methods will have to be considered more particularly in a future section; for the present, I merely call attention to the fact of their opposition, and to the fact that Philosophy occupying an intermediate position has necessarily employed both Methods by turns. When it was in alliance with Theology, it adopted the Subjective Method: this was during its ontological phase. When the advance of Science furnished it with more and more material, Philosophy gradually detached itself more and more from Theology, without, however, consciously and completely adopting the Objective Method: this was its psychological phase. Finally, the all-embracing progress of Science has forced Philosophy frankly to adopt the Objective Method: this is its present phase, the Positive Philosophy.

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* In 1864 was seen a memorable protest, on the part of scientific men, against every attempt to control their researches. In spite of the theological pressure, which is so powerful in England, our leading savans openly and *indignantly* refused to sign a declaration of dependence.

† A somewhat analogous inversion has taken place in the social problem. Formerly the problem was: Given the welfare and advantages of the Few, how best to reconcile with these the welfare of the Many; it now is: Given the welfare of the Many, how best to secure the advantages of the Few. The new Astronomy transferred the centre of the world from the small Earth to the mighty Sun; the new Sociology transfers the centre of social life from the small group of Idlers to the mighty mass of Workers.

Such in brief is the story we have to tell. Our history is the narrative of the emancipation of Philosophy from Theology and its final constitution through the transformation of Science.

§ 7. The annals are red with the flames of persecuting wrath at every attempt Philosophy made to assert independence. Naturally enough. No autocrat can be lenient to a powerful pretender; and the more reasonable the pretender's claim the more hateful will be its assertion. Philosophy, in turn, was equally intolerant of its rival Science, and allied itself with its ancient persecutor to persecute the new pretender.

Aloof from the strife of polemics and personal irritations, the wise calm spirits of our day resign themselves to the Triumvirate, defining for each its separate province, and trusting in a harmony of combined effort which hitherto has been impossible. It is time that the great perturbations should cease, and the only struggles be carried on within the limits of each domain: theologians in controversy with theologians, savans with savans, philosophers with philosophers. The three powers have always hitherto been in a state of conflict or of armed peace. The problem of our age is, how to change this conflict into a concourse, to unite the independent and dissident efforts in dependent and harmonious efforts. This problem may be solved by the transformation of Science into Philosophy, and by the transformation of Philosophy into Religion. But whether we reject or accept that solution, the systematisation of our religious conceptions and all its practical applications must be a distinct office from the systematisation of our conceptions of the order of phenomena; and the harmony of the two can only be effected by a Doctrine which combines the generalities of both. The future of Philosophy is in this task of reconciliation.

§ 8. In the former editions of this History the word Philosophy carried a more restricted meaning than is assigned to it in the preceding paragraphs. It was used as synonymous with Metaphysics, or more specially with Ontology. That restricted use of the word was forced on me by the practice of all previous historians, and I stated why it was forced upon me, and in what sense the word was to be understood. In vain. The old vague indissoluble associations could not be escaped. The reader quickly forgot my explanation, and interpreted the word in his vague sense, instead of in my restricted sense. The large latitude in which the word has come to be used all over Europe has obliterated all special meaning, and this notably in England, where, as Hegel sarcastically remarks, microscopes and barometers are dignified as 'philosophical instruments,' Newton is styled a philosopher, and even parliamentary proceedings are sometimes said to be philosophical.* In presence of such looseness of expression what was the historian to do? Obviously, he could only declare the sense in which the word was used in other histories of Philosophy, and abide by that. Had I not fixed a precise meaning to the word I must have written a History of Knowledge, not a History of Philosophy.

My explanation was of little avail. The object of my work being to show the essential futility of Philosophy, in the restricted sense of that word, I was supposed to have intended a crusade against Philosophy in the wider sense; and readers who no more believed in Ontology than I did were startled by my attacks on it under the name of Philosophy. After this experience I cannot place much reliance on the security of any definition; but for the sake of attentive readers, I have stated what position Philosophy holds in relation to Theology and Science; and to avoid equivoque I shall use the words Metaphysical Philosophy, or Ontology, and sometimes simply Metaphysics, to designate inquiries on the Subjective Method into the ultimate essence of things.

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* HEGEL: *Geschichte der Philosophie*, i. 72. Compare also HAMILTON, *Metaphysics*, i. 63.

§ 9. Unhappily there is no uniformity even in the use of the term Metaphysics. Sometimes it means Ontology. Sometimes it means Psychology. Sometimes it means the highest generalities of Physics. The first of these inquiries I hold to be utterly futile, hopelessly beyond human ken. But the second and third are legitimate inquiries, which take their place in human knowledge whenever they are pursued on the Objective Method, and only deserve reproof when pursued on the Subjective Method, upon which *all* problems are insoluble. As I have shown at some length elsewhere,* all problems are legitimate which admit Verification of their premisses and conclusions; and no Verification is possible except on the Objective Method.

§ 10. In the arrangement of Aristotle's treatises, those which succeeded the Physics were called τὰ μετὰ τὰ φυσικὰ βιβλία—indicating that they were to be studied *after* the Physics, either because their topics were evolved from physical inquiries, or because their topics were beyond physical inquiry. The equivoque still continues. Metaphysics may concern itself with the last conclusions of Physics, dealing with these results as its elements; or it may concern itself with inquiries beyond the region of Experience, entirely removed from Verification, transcending Sense, and drawing its data from a higher source. Obviously, in proportion as it seeks its elements in the relations of sensible phenomena it forms one branch of legitimate inquiry, and the only question then is as to the validity of the Method it employs. In proportion as it seeks its elements in the relations of supersensible phenomena it separates itself from Experience, ceases to be amenable to the ordinary canons of

* *Aristotle*, chap. iv.

Research, and grounds its existence on the possession of a peculiar criterion—a direct and immediate knowledge of the Absolute.

The confusion of these two distinct conceptions is very common, and is the source of much perplexity. Those who hold the doctrine of the relativity of knowledge may admit without inconsistency many principles which are metaphysical in the sense of transcending Experience in their generality, although founded on Experience and conformable with it: such, for example, are causality and inertia. There is a large admixture of such Metaphysics, in all philosophical Physics; and in this sense we may call Metaphysics the *prima philosophia.* But Experience is here the source and pattern: the Objective Method with its rigorous tests of Verification rules as absolutely here as in every other department of positive inquiry. The Unknown is only a prolongation of the Known, and is trusted only so far as it is in strict conformity with the Known. The Invisible is but the generalisation of the Visible.

Those who hold that, over and above the conceptions furnished through Experience, the mind brings with it certain conceptions antecedent to and independent of Experience, who hold that, over and above our relative knowledge, we have absolute knowledge, *reverse* this procedure from the Known and Visible to the Unknown and Invisible; and starting from what their rivals declare to be not simply the Unknown but the Unknowable, they deduce from it certain conclusions which they present as ontological truths capable of guiding us in discovering the relations of phenomena. Let Descartes be heard on this point:—'Perspicuum est optimam philosophandi viam nos sequuturos, si ex ipsius Dei cognitione, rerum ab eo creatarum explicationem deducere conemur, ut ita scientiam perfectissimam, quæ est effectuum, per causas acquiramus.'* The fallacy lies in concluding that because, in Mathematics and all deductive operations, we unfold the particulars contained implicitly in the generalities, we should therefore always seek particulars in this way. But the procedure is only justifiable when the generalities are proved to be indisputably true, and when the particulars deduced are by Verification shown to be really as well as verbally contained in them. Now, what are the chief objects of absolute knowledge, the generalities from which ontologists deduce? They are God, Freedom, Immortality, Causality, Existence: the noumena of which all the manifold experiences are phenomena.* That it is possible to *infer* these, no one denies; but their value as inferences opens an interminable discussion. The ontologists claim to *know* them directly, immediately, certainly. Their opponents affirm—and endeavour psychologically to prove—that such knowledge is impossible, and that, if possible, it would be infertile, because incapable of being applied to the problems of phenomena except through Experience; infertile, because it can only be a comparison of ideas with ideas, never of ideas with facts; and thus stumbles over the old sceptical objection—*τίς κρινεῖ τὸν ὑγιεινόν*; Suppose, for example, that antecedently to all Experience we know the general law of Causality, it is only through Experience we can enrich this knowledge. We may know that every effect has a cause; this knowledge we may have brought with us into our phenomenal life; but what concerns us is, to know the particular cause of each particular effect, and if we can ascertain that, the general axiom may be disregarded; if we cannot ascertain that, the general axiom is powerless.

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* DESCARTES: *Princip. Philos.* ii. § 22.

§ 11. The valid objection against Metaphysics is not so much against the subjects of inquiry as against the Method of inquiry; if the Method were legitimate its results would be legitimated. I shall consider this Method by-and-by; for the present I invoke the unequivocal verdict of History, which pronounces it to be the prolonged impotence of two thousand years and all its results, as shifting as the visionary phantoms of reverie. When we are awake, says Aristotle, we have a world in common; when we dream, each has his own. Kant aptly applies this to metaphysicians, 'when we find a variety of men having various worlds, we may conclude them to be dreaming.' It is because the majority of thinking men have been convinced that inquiries conducted on the Metaphysical Method are but as dreams, that they have everywhere in Europe fallen into discredit. Once the pride and glory of the greatest intellects, and still forming an important element of liberal culture, the present decadence of Metaphysics is attested no less by the complaints of its few followers than by the thronging ranks of its opponents. Few now believe in its large promises; still fewer devote to it that passionate patience which is devoted by thousands to Science. Every day the conviction gains strength, that Metaphysics is condemned, by the very nature of its Method, to wander for ever in one tortuous labyrinth, within whose circumscribed and winding spaces weary seekers are continually finding themselves in the trodden tracks of predecessors who could find no exit.

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* *ἔστιν ἐπιστήμη τις ἣ θεωρεῖ τὸ ὂν ᾗ ὂν καὶ τὰ τούτῳ ὑπάρχοντα καθ' αὑτό.*—ARISTOTLE: *Met.* iii. 1.

Metaphysical Philosophy has been ever in movement, but the movement has been circular; and this fact is thrown into stronger relief by contrast with the linear progress of Science. Instead of perpetually finding itself, after years of gigantic endeavour, returned to the precise point from which it started, Science finds itself, year by year, and almost day by day, advancing step by step, each accumulation of power adding to the momentum of its progress; each evolution, like the evolutions of organic development, bringing with it a new functional superiority, which in its turn becomes the agent of higher developments. Not a fact is discovered but has its bearing on the whole body of doctrine; not a mechanical improvement in the construction of instruments but opens fresh sources of discovery. Onward, and for ever onward, mightier and for ever mightier, rolls this wondrous tide of discovery. While the first principles of Metaphysical Philosophy are to this day as much a matter of dispute as they were two thousand years ago,[*] the first principles of Science are securely established, and form the guiding lights of European progress. Precisely the same questions are agitated in Germany at the present moment that were agitated in ancient Greece; and with no more certain Methods of solving them, with no nearer hopes of ultimate success. The History of Philosophy presents the spectacle of thousands of intellects—some the greatest that have made our race illustrious—steadily concentrated on problems believed to be of vital importance, yet producing no other result than a conviction of the extreme facility of error, and the remoteness of any probability that Truth can be reached.[†] The only conquest has been *critical*, that is to say, psychological. Vainly do some argue that Philosophy has made no progress hitherto, because its problems are complex, and require more effort than the simpler problems of Science; vainly are we warned not to conclude from the past to the future, averring that no progress will be made because no progress has been made. Perilous as it must ever be to set absolute limits to the future of human capacity, there can be no peril in averring that Metaphysics never will achieve its aims, because those aims lie beyond all scope. The difficulty is impossibility. No progress can be made because no basis of certainty is possible. To aspire to the knowledge of more than phenomena—their resemblances, co-existences, and successions—is to aspire to transcend the inexorable limits of human faculty. To *know* more, we must *be* more.

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[*] 'C'est la honte éternelle de la philosophie de n'avoir pas jusqu'à présent mis au jour un résultat positif, un principe une fois pour toute reconnu et universellement admis. Bien mieux, il n'y a pas même un résultat négatif, une défaite complète, irrévocable d'une doctrine si réfutée qu'elle soit.'—Delbœuf: *Essai de Logique Scientifique*, Liège, 1865, p. 10. Compare Kant: *Prolegomena zu einer jeden künftigen Metaphysik*, passim.

[†] Compare Kant in the Preface to the 2nd ed. of the *Kritik der reinen Vernunft*:—'Der Metaphysik . . . ist das Schicksal bisher noch so günstig nicht gewesen, dass sie den sichern Gang einer Wissenschaft einzuschlagen vermocht hätte; ob sie gleich älter ist als alle übrigen. . . . Es ist also kein Zweifel, dass ihr Verfahren bisher ein blosses Herumtappen und, was das Schlimmste ist, unter blossen Begriffen gewesen sei.'

In the early days of speculation all Philosophy was essentially metaphysical, because Science had not emerged from Common Knowledge to claim theoretical jurisdiction. The particular sciences then cultivated, no less than the higher generalities on Life, Destiny, and the Universe, were studied on one and the same Method; but in the course of evolution a second Method grew up, at first timidly and unconsciously, gradually enlarging its bounds as it enlarged its powers, and at last separating itself into open antagonism with its parent and rival. The child then destroyed its parent; as the mythic Zeus, calling the Titans to his aid, destroyed Saturn and usurped his throne. The Titans of the new Method were Observation and Experiment.

There are many who deplore the encroachment of Science, fondly imagining that Metaphysical Philosophy would respond better to the higher wants of man. This regret is partly unreasoning sentiment, partly ignorance of the limitations of human faculty. Even among those who admit that Ontology is an impossible attempt, there are many who think it should be persevered in, because of the 'lofty views' it is supposed to open to us. This is as if a man desirous of going to America should insist on walking there, because journeys on foot are more poetical than journeys by steam; in vain is he shown the impossibility of crossing the Atlantic on foot; he admits that grovelling fact, but his lofty soul has visions of some mysterious overland route by which he hopes to pass. He dies without reaching America; but to the last gasp he maintains that he has discovered the route on which others may reach it.

Let us hear no more of the lofty views claimed as the exclusive privilege of Metaphysics. Ignorant indeed must be the man who nowadays is unacquainted with the grandeur and sweep of scientific speculation in Astronomy and Geology, or who has never been thrilled by the revelations of the telescope and microscope. The heights and depths of man's nature, the heights to which he aspires, the depths into which he searches, and the grander generalities on Life, Destiny, and the Universe, find as eminent a place in Science as in Metaphysics. And even were we compelled to acknowledge that lofty views were excluded from Science, the earnest mind would surely barter such loftiness for Truth? Our struggle, our passion, our hope, is for Truth, not for loftiness; for sincerity, not for pretence. If we cannot reach certain heights, let us acknowledge them to be inacessible, and not deceive ourselves and others by phrases which pretend that these heights are accessible. Bentham warns us against 'question-begging epithets;' and one of these is the epithet 'lofty,' with which Metaphysical Philosophy allures the unwary student. As a specimen of the sentiment so inappropriately dragged in to decide questions not of sentiment but of truth, consider the following passage delivered from the professorial chair to students whose opinions were to be formed:—

'A spirit of most misjudging contempt has for many years become fashionable towards the metaphysical contemplations of the elder sages. Alas! I cannot understand on what principles. Is it, then, a matter to be exulted in, that we have at length discovered that our faculties are only formed for earth and earthly phenomena? Are we to rejoice at our own limitations, and delight that we can be cogently demonstrated to be prisoners of sense and the facts of sense? In those early struggles after a higher and more perfect knowledge, and in the forgetfulness of every inferior science through the very ardour of the pursuit, there is at least a glorious, an irresistible testimony to the loftier destinies of man; and it might almost be pronounced that in *such* a view, their very errors evidence a truth higher than all our discoveries can disclose! When Lord Bacon, with his clear and powerful reasonings, led our thinkers from these ancient regions of thought (then newly opened to the modern world) to the humbler but more varied and extensive department of inductive inquiry, I represent to myself that angel-guide, all light and grace, who is pictured by our great poet as slowly conducting the first of our race from Paradise, to leave him in a world, vast, indeed, and varied, but where thorns and thistles abounded, and food—often uncertain and often perilous—was to be gained only by the sweat of the brow and in the downcast attitude of servile toil.'*

It would be an insult to the reader's understanding to answer the several absurdities and 'question-begging' positions of this passage, which, however, is typical of much that may be read in many writers. Contempt for the speculations of the elder sages, or indeed of moderns, is a feeling we should be slow to acknowledge, whatever estimate we formed of their truth. If my polemical tone against a Method I believe to be not only hopeless but nowadays pernicious has sometimes seemed to warrant such an accusation, let me, on personal no less than philosophic grounds, rebut it here. The memory of long laborious study, ever baffled ever renewed, would alone suffice to create sympathy and respect for all earnest seekers; and if this feeling were not present, the Positive Philosophy would suffice, pointing as it does to all the great metaphysicians as necessary precursors, without whose labours Science would never have existed. It is not because the noble pioneers have perished in the trenches, that their renown should fade. If we make a bridge of their dead bodies, we should raise a monument to their devotion.

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* ARCHER BUTLER: *Lectures on the Hist. of Ancient Philosophy*, ii. 109.

II. THE OBJECTIVE AND SUBJECTIVE METHODS.

§ 12. A Spanish metaphysician truly says that the question of Method rules, and in one sense comprehends, all philosophical questions, being indeed Philosophy in action.* As it is a path on which Truth is sought, we must first come to some agreement respecting the object of search.

The question, What is Truth? has been variously answered, but instead of pausing here to consider the answers, I will propose one which is sufficiently catholic to be accepted by all schools.

> Truth is the correspondence between the order of ideas and the order of phenomena, so that the one is a reflection of the other—the movement of Thought following the movement of Things.

The correspondence can never be absolute: it must, from the very structure of the mind, be relative; but this relative accuracy suffices when it enables us to foresee with certainty the changes which will arise in the external order under given conditions. If the order in our ideas respecting falling bodies sufficiently corresponds with the order of the phenomena themselves to enable us to express the Law with precision, and foresee its results with certainty, we have in that Law a truth of the only kind attainable by us.

The reader will observe that I have used the phrases 'order in ideas' and 'movement of thought' instead of adopting the ordinary formula 'ideas conformable with objects.' If Truth is the conformity of ideas with objects, Truth is a chimera, or Idealism is irresistible. 'La notion de *vérité* implique une contradiction,' says Delbœuf. 'Par définition, une idée n'est vraie qu'à la condition d'être conforme, adéquate à son objet. Mais, par essence, une idée est nécessairement différente d'un objet. Comment donc puis-je parler d'une équation entre l'idée et son objet?'* The old sceptical arguments are unanswerable on this ground. We need not, however, rush into Idealism by affirming the identity of ideas and their objects; we need simply give up all pretension to absolute knowledge, and rest contented with relative knowledge, which permits of our adjusting our actions to the external order. Indeed the ultimate aim of knowledge is adaptation; and we call it Truth when the adaptation is precise. What bodies are in themselves, what falling is in itself, need not properly concern us; only what are the relations in which bodies and their movements stand to our perceptions. If in attempting to comprehend these relations we succeed in so arranging our ideas that their order corresponds with the order of phenomena (as when we think of falling bodies having a velocity proportional to the time), that arrangement is Truth; but if, instead of the movement of Thought being controlled by the movement of Things, our ideas are arranged in an order which does not correspond with the order of phenomena (as when we think of the velocity being proportional to the space fallen through), that is Error. And this discloses the imperfection of the many definitions of Truth which regard it as 'conformity among ideas.' The conception of velocity proportional to *space* is a conception which would have nothing against it were it not opposed to the facts. As a pure deduction it is inevitable; a movement of Thought determined by some pre-existing thought necessarily takes that course; but a movement of Thought determined by that of Things, following step by step the succession of phenomena, leads to the conclusion of velocity proportional to the *time*.

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* Nieto Serrano: *Bosquejo de la Ciencia Viviente*, Madrid, 1867. *Parte primera*, p. 31. 'La cuestion de método domina y comprende hasta cierto punto todas las cuestiones filosóficas. Efectivamente el método filosófico es la filosofía misma en accion, la cual aparece ya tal cual es desde los primeros pasos, y no puede desmentirse en lo sucesivo.'

§ 13. To attain this correspondence between the internal and external order is the object of Search; and the Methods of Search are two:

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* DELBŒUF: *Essai de Logique Scientifique*, p. 35.

a. The Objective Method which moulds its conceptions on realities by closely following the movements of the objects as they severally present themselves to Sense, so that the movements of Thought may synchronise with the movements of Things.

β. The Subjective Method which moulds realities on its conceptions, endeavouring to discern the order of Things, not by step by step adjustments of the order of ideas to it, but by the anticipatory rush of Thought, the direction of which is *determined* by Thoughts and not *controlled* by Objects.

Observation of objects presented to the mind must be succeeded by Conjecture respecting the connecting, but unobserved, links. The successive stages of inquiry are from Observation to Conjecture, and from Conjecture to Verification. The Subjective Method stops at the second stage: its function is Hypothesis. The Objective Method passes on to the third stage: its function is Verification. Thus while the first characterises our spontaneous tendency, and is seen in full vigour in all the early forms of speculation, the second characterises our reflective tendency, and is the source of positive knowledge. The Objective Method thus absorbs what is excellent in the Subjective Method, as Science takes up into itself whatever Metaphysics can establish, rejecting what is irrelevant and completing what is incomplete. Both physicist and metaphysicist employ Observation and Conjecture; but the physicist, if true to the Objective Method, is careful to verify the accuracy of his observations and conjectures, submitting the order of his ideas to the order of phenomena; whereas the metaphysicist, obeying the subjective impulse, is careless of Verification, and is quite ready to rely on data and conclusions which are absolutely incapable of Verification. The one freely employs Hypothesis under the rigorous condition of never relying on a conjecture as a fact, never assuming that a harmony in his conceptions must necessarily imply a corresponding arrangement in phenomena; the other employs Hypothesis under the single condition of not thereby introducing a logical discord. In the one case the 'anticipatory rush of thought' is controlled by the confrontation of ideas with objects. In the other case the rush of thought is controlled only by the confrontation of ideas with ideas. Briefly, then, it may be said that the Objective Method seeks Truth in the relations of objects; whereas the Subjective Method seeks it in the relations of ideas.

§ 14. Philosophers expound the objective and subjective elements of which Knowledge is composed, as the *material* and *formal* elements. Things furnish the materials. Thought furnishes the forms. Objects stimulate the activity of the Mind; the Laws of mental action determine the result, in the forms of percepts, concepts, and judgments. But philosophers continually overlook the important consideration that the Mind, besides its laws which determine the forms of the material given by objects, has also a movement of its own; and this movement is determined from within, by some pre-existing movement, just as it may be determined from without, by the stimulus of objects. It is this *subjective current* which, disturbing the clear reflection of the objective order, is the main source of error. It determines those concepts and judgments which have no corresponding objects: hallucinations, reveries, dreams, hypotheses, figments. This being so, we cannot accept the notion adopted by Sir W. Hamilton from Twesten, that 'the condition of error is not the activity of intelligence but its inactivity.' On the contrary we must assign error to the activity of intelligence when it follows its own impulses in lieu of receiving the direction from objects. 'What is actually thought,' according to Twesten and his follower, 'cannot but be correctly thought. Error first commences when thinking is remitted, and can in fact only gain admission in virtue of the truth which it contains;—every error is a perverted truth.'* This seems to me so glaringly in opposition to all rational interpretation that I must conclude it to mean something very different from what it says. Hamilton's comment only makes the matter worse.

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* HAMILTON: *Logic*, i. 77.

§ 15. That the source of Error is *the subjective current determining the direction of the thoughts*, is easily shown. Error arises in the substitution of Inference for Presentation. No error can possibly arise in Sensation itself, but solely in the movements of thought which are prompted by the sensation. The immense activity of this subjective current, the large interfusion of Inference in the simplest acts of Perception, has long been recognised; and, as I have said elsewhere, what is called a 'fact' and held to be indisputable because it is a 'fact,' is in reality a bundle of inferences, some or all of which may be false, tied together by sensations, which must be true. Take a case so simple as the sight of an apple on the table. All that is here directly certified by consciousness is the sensation of a coloured surface; with this are linked certain ideas of roundness, firmness, sweetness, and fragrance, which were once sensations, and are now recalled by this of colour; and the whole group of actual and inferred sensations clusters into the fact which is expressed in 'there is an apple.' Yet any one of these inferences may be erroneous. The coloured object may be the imitation of an apple in wood or stone; the inferences of roundness and solidity would then be correct, those of sweetness and fragrance erroneous; the statement of fact would be false. Or the object seen may be another kind of fruit, resembling an apple, yet in important particulars differing from it. Or the object may not exist, and our perception may be an hallucination. Thus a case seemingly so simple may furnish us with the evidence that Facts express our conception of the order in external things, and not the unadulterated order itself. Should the accuracy of any particular fact happen to be of importance—and in Science all facts are important—we must verify it, before accepting it. How is it verified? By *submitting each of its constituent inferences to the primordial test of Consciousness.* The test with regard to objects within range of sense is obviously the reduction of Inference to Sensation. The test with regard to axioms, or general principles transcending sense, is conformity with the laws of thought; when we have thus verified a fact we have attained the highest degree of certitude.

The mental vision by which in Perception we see the *unapparent* details—i. e. by which sensations formerly co-existing with the one now affecting us are reinstated under the form of ideas, which represent the objects—is a process closely allied to Ratiocination, which also presents an *ideal series* such as, if the objects were before us, would be a series of sensations, or perceptions. A chain of reasoning is a chain of inferences, which are *ideal presentations* of the details now *unapparent to sense.* Could we realise all the links in this chain, by placing the objects in their actual order as a visible series, the chain of reasoning would be a succession of perceptions, and would cease to be called reasoning. The path of the planets is seen by reason to be an ellipse; it would be perceived as a fact if we were in a proper position, and endowed with the requisite instruments to enable us to follow the planet in its course. Not having this advantage, we infer the unapparent points in its course, from those which are apparent. We see them mentally. In like manner, suppose a human body is discovered under conditions which suggest that it has been burned, but without sufficient indication of the cause, i. e. the facts antecedent to the burning. Some one suggests that these unapparent facts are those of Spontaneous Combustion. Our greater familiarity with the facts of combustion in general, and with the facts of the animal organism, enables us to *see* that this explanation is absurd; we mentally range the supposed objects before us, and see that *such* an order of co-existences and successions is in contradiction to all experience; we cannot see what the actual order was, but see clearly that it was not *that.*

Correct reasoning is the ideal assemblage of objects in their true relations of co-existence and succession. It is seeing with the mind's eye. Bad reasoning results from overlooking either some of the objects, or their relations; some links are dropped, and the gap is filled up from another series. Thus the traveller *sees* a highwayman, where there is truly no more than a sign-post in the twilight; and a philosopher, in the twilight of knowledge, *sees* a pestilence foreshadowed by an eclipse.

These considerations may elucidate the real meaning to be assigned to Facts, which are sometimes taken to express the order of external things, and sometimes our conception of that order—our *description* of it; just as sound means both the vibrations of the air, and our sensation of them. There is a general tendency to use the word Fact for a final truth. 'This is a fact not a theory' means, 'this is an indisputable truth, not a disputable *view* of the truth.' But if, as we have seen, Facts are inextricably mingled with Inferences, and if both Perception and Reasoning are processes of *mental vision reinstating unapparent details*, and liable to error in the inferences, it is clear that the radical antithesis is not between Fact and Theory, but between *verified and unverified Inferences.*

The antithesis between Fact and Theory is untenable, for the same statement may be either a fact or a theory, without any change in its evidence. It is a fact that the earth is globular. It is a fact that this globe is an oblate spheroid. It is a fact that its orbit is elliptical. No one doubts that these are facts, no one doubts that they are theories. Shall we say that they were theories until they were verified, when they became facts? This will not extricate us; since all facts require verification before they are admitted as truths; up to that point they are not less inferential than theories.

I see an apple now falling, and I see an apple which has fallen. These are two facts which ordinary language will not suffer us to call theories. Now consider two theories which ordinary language suffers us to call facts: namely, that all apples when unsupported will fall, and that the spaces fallen through will be as the squares of the times. These are two theories of extreme generality, which are far more indisputable than the facts we have contrasted them with. They carry such certainty that no mind having the requisite preparation can for a moment hesitate in assenting to them. They are inferences which are necessities. Whereas the inferences involved in the facts before named may very easily be erroneous. The falling object may not be an apple; the apple found at the foot of the tree may not have fallen, but have been plucked and placed there. Thus doubt is permissible; and if the facts carried any importance we should be bound to verify the accuracy of our inferences. No doubt is permissible in respect to the two theories, because the inferences on which they rest have already been rigorously verified. They carry none of those possibilities of error which we know may be carried by individual experiences; all such possibilities have been eliminated in the establishment of the general truth. Should any individual experience seem in contradiction with a thoroughly verified theory, should a hundred individual experiences contradict it, our confidence would suffer no disturbance; we should at once assign them to the interference of some *condition not included in the formula.* That condition might be wholly undiscoverable, but we should be certain that the laws of nature were invariable; and our experience of disturbing influences is sufficiently extensive to invoke them in every apparent exception to a law. If it happened that two magnets placed side by side impressed on a particle of iron a velocity greater, or less, than the sum of the velocity due to each magnet acting separately, and if this were to occur a thousand times, we should not doubt the truth of the law that the velocity is proportional to the force, but should attribute this exception to some exceptional condition, such as the influence of one magnet on the other. The reason is simple: the law has been rigorously verified; the absence of any exceptional condition has not been verified, whereas the presence of such a condition is suggested by manifold experiences in analogous cases.

Failing thus to discover any valid antithesis between Fact and Theory, we must look upon the ordinary distinction as simply verbal. Shall we express it by the terms Description and Explanation, implying that a Fact describes the order of phenomena, and a Theory interprets that order? For many purposes this would suffice. Yet on examination we shall find that an Explanation is only a fuller Description: more details are introduced, greater precision is given, the links in the chain which are unapparent to sense, are made apparent to reason; but the essential mystery is untouched; successions are enumerated, but causation escapes. Thus in the description of falling bodies, greater fulness and precision of detail are given when the unapparent links are added, and the law of gravitation is introduced as the explanation. In like manner the description of an event, say the destruction of a house by a fire, acquires greater fulness and precision of detail when the apparent details are completed by some eye-witness who saw the fire break out, and explains it by this enumeration of details. In each case the objects are ranged in their order, and are *seen* thus; but in each case many objects are not seen, many intermediate links are overlooked, or are undiscoverable; and the causal nexus is for ever undiscoverable. Thus it is that explanations are descriptions, and descriptions are explanations, facts are theories, and theories facts. Science is the explanation of nature; the systematic co-ordination of the facts of co-existence and succession.

§ 16. In the preceding paragraphs we have vindicated the necessity of the subjective current, and its dangers. The weakness of the Subjective Method is its impossibility of applying Verification; whereas the security of the Objective Method lies in its vigilant Verification. In both the mind has to supply the *formal* elements; in both it has to link together sensations by inferences, and to classify objects according to inferred relations. But the Objective Method simply co-ordinates the materials furnished by Experience; it introduces no new materials; or if it admits them, it does so provisionally and hypothetically; they are not accepted as real objects until their reality has been otherwise established. Whereas the Subjective Method is perpetually overstepping the limits that divide the material from the formal; its tendency is to confound concepts with percepts, ideas with objects, conjectures with realities. It commits the fault of drawing *material* from the Subject, instead of drawing only *form*. It takes up an inference and treats it as a fact, and thus gives its own fictions the character of reality. Because it cannot apply Verification it assumes that the order of ideas must correspond with the external order if no disorder (contradiction) be displayed. Hence it is that metaphysical conclusions are sometimes so audaciously at variance with what is known of the external order.*

§ 17. The Objective Method is incapable of reaching any results without the large employment of Inference, the successive steps of discovery being Observation, Hypothesis, and Verification. It is distinguished from the Subjective Method, not by its *aim*, which is in both that of co-ordinating the relations of objects, but by its principle of seeking the relations in the order of the objects themselves, instead of in the order of our ideas: submitting therefore every Inference to the control of Verification, and refusing to accept a conjecture as a fact until it has been tested by confrontation with the external order. The cardinal distinction between Metaphysics and Science lies in Method, not in the nature of their topics; and the proof of this is exemplified in the fact that a theory may be transferred from Metaphysics to Science simply by the addition of a verifiable element; or, conversely, may be transferred from Science to Metaphysics by the withdrawal of this same verifiable element. Thus the law of gravitation is a scientific theory; but if we withdraw from it the verifiable formula 'inversely as the square of the distance and directly as the mass,' there remains only the occult Attraction,—which is metaphysical. On the other hand, if to a metaphysical theory of gravitation, which explains the phenomena by Attraction or an 'inherent virtue,' we add the verifiable formula of its mode of action, the purely subjective conception passes at once into the objective region, and a scientific theory results.

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* HEGEL, for instance, bases his system on Contradiction. So far from admitting that a thing cannot be the contrary of that which it is, he affirms, as a fundamental principle, that 'everything is at once that which it is and the contrary of that which it is.'

§ 18. In the course of this History we shall be incessantly witnessing the disastrous effects of transporting the *formal* elements of knowledge into the region of *material* elements—'realising abstractions,' as it is called—and deducing conclusions from unverified inferences as if they had been verified. We shall witness the efforts of philosophers to interpret the external order by the internal order, animating Nature with human tendencies, interpreting *motors* by *motives*. Thus because we derive our conceptions of Force and Cause from our own efforts and volitions, we interpret the changes seen without us by the changes felt within us. This is the source of the Fetichism of children and savages; of the Polytheism of early nations; and, by a gradual refinement in abstraction, of the Metaphysics and Physics of philosophers. Causes are first personified; next raised into Deities; then, by gradual elimination of the personal qualities, transformed into Entities; and finally resolved into Forces, which are exponents of relations. Thus first disappears the Will, next the independent existence; and what finally remains is an *abstract expression of the observed order.*

§ 19. To make the two Methods more readily appreciable by exhibiting them in operation, I will select an imaginary case and two real cases.

From a country where clocks are unknown, even by tradition, two travellers arrive, and in the kitchen of the cottage where they are first received they observe with astonishment an eight-day clock. The phenomena it presents are so novel that our travellers at once begin attempting an explanation. Now all explanation consists in bringing the unknown facts under certain general facts already known; only by finding what the unknown is *like*, can it be classed and known. In the present case the new phenomena resemble certain phenomena observed in animals. Hence the first rough approximation to an explanation is the conjecture that the clock must be alive. Suppose one of the travellers to be uncultivated, and still in the fetichistic stage, he will at once *conclude from his conjecture* that the clock is a fetich, and is inhabited by a good or evil Spirit. Let us, however, suppose him to have emerged from the primitive stage of intellectual development, and to have become a thoughtful metaphysician. His companion we will suppose to have been trained in Science and its methods. Both start from the spontaneous hypothesis that the clock is alive, this being the conjecture which most naturally ranges the new phenomena under known phenomena. Let us now watch their procedure.

A is a subjective philosopher, and, not aware of the absolute necessity of verifying his hypothesis, proceeds to apply it, and to deduce explanations of the clock-phenomena from the known facts of animal life. The ticking resembles the regular sounds of breathing; the beating of the pendulum is like the beating of the heart; the slow movements of the hands are they not movements of feelers in search of food? the striking of the hours are they not cries of pain or expressions of anger? If the hours are struck just as he approaches the clock to examine it, or has laid hold of it, the coincidence easily suggests rage or terror as the cause; and he having once formed that conception, all subsequent experience of the clock striking when he is at a distance from it, or when no one is in the kitchen, will fail to shake it, but will be accommodated to it by other explanations.

By continuing to observe the phenomena his first rough explanation would gradually be modified, and give place to one more consistent with the facts. A variety of ingenious explanations would occur; but they would all be vitiated by the absence of any verification of the data. He observes a certain periodicity in the recurrence of the cries. There is a regularity in the succession of these cries—one being always followed by two, and two by three, and so on up to twelve; after which one recurs and two and three in the old order. To his great delight he at last observes a coincidence between each of these cries and the position of the hands on the dial-plate; the longer hand always pointing to twelve, and the shorter hand to the number corresponding with the cries. Hence he properly infers a causal connection; but *what* that is he can only guess; out of several guesses he selects the most plausible. He propounds his explanation to his friend B with perfect confidence in its truth.

B hereupon impatiently points out the treacherous nature of the procedure A has followed. 'My dear fellow, you seem unaware that your starting-point requires strict examination. You assume the vitality of the clock, and having assumed this, you interpret by it the resemblance of ticking to breathing, and of the sounds to cries of pain and anger. But the clock may be alive, and yet these resemblances may be fallacious; they must be verified before they can be accepted; and if the clock is *not* alive? You muddle yourself with Metaphysics, and amuse yourself with drawing deductions, instead of verifying your data. In classing the new facts under old facts it is necessary that we should assure ourselves that the resemblance we imagine is a real resemblance, and springs from similar roots. To effect this, rigorous Analysis is indispensable. But on your Subjective Method there is no analysis of objects, only of ideas. Let me describe the course of my own investigations, guided by that Method which Science has taught me to rely on.

'Like you I conjectured that an animal was before me. What animal? I first perceived that in many respects it was unlike all animals known to me; and pursuing this track I found so many points of unlikeness, and these of such significance in animal life, that *another* conjecture emerged, and I asked, Is it an animal at all? Here were two starting-points, both conjectural, both needing verification. I chose to begin upon the second, and for this reason: if the clock were not an animal the natural inference was that it must be a machine. I was already familiar with many machines, more so than with organisms, and I began trying how far the observed phenomena could be brought under the known facts of mechanism. Now observe the operation of scientific method! You might have joined with me in forming precisely the same conjectures, but you would have started off at a tangent, and would have deduced from mechanical facts just as you deduced from vital facts, without troubling yourself about Verification. Had I not employed that potent instrument Analysis I should never have discovered the truth about the clock. The complex facts had to be decomposed, and their elements ascertained. As this could not (successfully) be done by analysis of my ideas, I had no alternative but to take the clock to pieces, bit by bit, in the search after the objective condition of each element in this complex whole. I removed the dial-plate, then the back, finally the whole external case; but still the pendulum swung, still the sounds regularly succeeded. Accidentally arresting the pendulum, I found that all the phenomena disappeared; restoring its swing, I restored the phenomena. After repeating this often enough to eliminate all possibilities of coincidence I came to the conclusion that the clock-phenomena were dependent on the motion of the pendulum. This was one step, and an important one; but it was no explanation. There were two questions still to be answered: What makes the pendulum move in this manner? and how does its motion effect the observed results? Had I been deprived of the means of objective analysis, unable to take the clock to pieces, I should have been reduced to your procedure—ingenious guessing. But Observation having disclosed the ascent of one weight and descent of another, I conjectured that this motion was connected with the striking of the hours: I verified it by pulling the descending weight, and I found that, as I pulled, the hands revolved, and the sounds, previously heard at long intervals, now rapidly succeeded each other. Having laid bare the interior I could trace the action of each part of the mechanism. I found that each beat of the pendulum detached one tooth of a wheel, and thus liberated the arrested movement of that wheel. I observed that these liberations were pulses coinciding with the tickings, and that the movements of the hands coincided with these movements of the wheel, every sixty revolutions of the wheel coinciding with each stroke of the clock. Having thus *explained* the mechanism I rejected the idea of the clock being an organism, as a needless and unacceptable hypothesis. I found that it resembles other mechanisms in all its essential characters, whereas it wants the primary character of an organism, that of drawing its force from Nutrition.'

§ 20. Even those who may object that our scientific traveller has too obviously the advantage in this illustration will admit that the two procedures are characteristically opposed. It is in taking an object to pieces by Analysis, either real or ideal, that we learn to estimate its elements and thus to estimate the whole. The Subjective Method deduces the elements from the whole; and it is confirmed in this procedure by the success of Deductive Science. There is, however, a vital distinction between the Deductive Method and the Subjective Method, and it is this: in the former both data and conclusions are verified by confrontation with the external order. If truth is the correspondence between the order of ideas and the order of phenomena, the only right Method must be that which step by step assures the correspondence, demonstrating that the order of our ideas is also that of the phenomena they represent.

§ 21. I have still to exemplify the operation of the rival Methods by two cases that have not the drawback which may attach to imaginary illustration. The first shall be borrowed from Broussais, in his contrast of Brown's system with his own:—

A survey of the phenomena of life led both to the general conception of Excitation as the constant condition of all vital phenomena, and therefore as a compendious expression which resumed the general facts. Up to this point both followed the Objective Method. *From* this point the divergence was great: 'Nous professons d'abord avec Brown, que la vie ne s'entretient que par l'excitation. Mais nous abandonnons aussitôt cet auteur, parce qu'il prend la voie de l'abstraction en dissertant toujours sur *l'excitation considérée en elle-même*; nous aimons mieux *étudier ce phénomène dans les organes* et dans les tissus qui les composent, ou plutôt observer les organes et les tissus excités.'*

§ 22. Our second illustration shall be taken from the instructive though deplorable hypothesis of Spirit-rapping, which is an indelible disgrace to the education of our age.

A few persons stand round a table, gently resting their hands on it, but careful not to push in any direction. In a little while the table moves, at first slowly, afterwards with growing velocity. The persons are all of the highest respectability, above suspicion of wilful deceit. The phenomenon is so unexpected, so unprecedented, that an explanation is imperiously demanded. In presence of unusual phenomena, men are unable to remain without some explanation which shall render intelligible to them how the unusual event is produced. They are spectators merely; condemned to witness the event, unable to penetrate directly into its causes, unable to get behind the scenes and *see* the strings which move the puppets, they *guess* at what they cannot see. Man is *interpres Naturæ*. Whether he be metaphysician or man of science, his starting-point is the same; and they are in error who say that the metaphysician differs from the man of science in drawing his explanation from the recesses of his own mind in lieu of drawing it from the observation of facts. Both observe facts, and both draw their interpretations from their own minds. Nay, as we have seen, there is necessarily, even in the most familiar fact, the annexation of mental inference—some formal element added by the mind, suggested by, but not given in, the immediate observation. Facts are the registration of direct observation and direct inference, congeries of particulars partly sensational, partly ideal. The scientific value of facts depends on the validity of the inferences bound up with them; and hence the profound truth of Cullen's paradox, that there are more false facts than false theories current.

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* BROUSSAIS: *De l'Irritation*, 2nd ed. 1839, i. 55.

The facts comprised in the phenomenon of 'Table-turning' are by no means so simple as they have been represented. Let us, however, reserve all criticism, and fix our attention solely on the phenomenon, which, expressed in rigorous terms, amounts to this:—the table turns; the cause of its turning is unknown. To explain this, one class of metaphysical minds refers it to the agency of an unseen Spirit. Connecting the spiritual manifestation with others which have been narrated to him, the interpreter finds no difficulty in believing that a Spirit moved the table; for 'the movement assuredly issued from no human agency;' the respectable witnesses 'declared they did not push.' Unless the table moved itself, therefore, his conclusion must be that it was moved by a Spirit.

Minds of another class give another explanation, one equally metaphysical, although its advocates scornfully reject the spiritual hypothesis. These minds are indisposed to admit the existence of Spirits as agents in natural phenomena; but their interpretation, in spite of its employing the language of Science, is as utterly removed from scientific method as the spiritual interpretation they despise. They attribute the phenomenon to Electricity. Connecting this supposed electrical manifestation with some other facts which seem to warrant the belief of nervous action being identical with electricity, they have no hesitation in affirming that electricity streams from the tips of the fingers. It is even suggested by one gentleman that 'the nervous fluid has probably a rotatory action, and a power of throwing off some of its surplus force.' How entirely these ideas of nervous fluid, rotatory power, and surplus force are additions drawn from the imagination and not supplied in the objects, I need scarcely pause to point out.

Each of these explanations has been very widely accepted by the general public. The obvious defect in both lies in the utter absence of any objective guarantee. We ought to be satisfied with no explanation which is without its valid guarantee. Before we purchase silver spoons we demand to see the mark of Silversmiths' Hall, to be assured that the spoons are silver, and not plated only. The test of the assayer dispels our misgivings. In like manner when the motion of a table is explained by spiritual agency, instead of debating whether the spirit 'bring airs from heaven or blasts from hell,' we let our scepticism fall on the preliminary assumption of the spirit's presence. Prove the presence of the spirit, before you ask us to go further. *If present*, the spirit is perhaps capable of producing this motion of the table; we do not know whether it is, for we know nothing about spirits; at any rate the primary point requiring proof is the presence of the spirit; we cannot permit you to assume such a presence merely to explain such a movement; for if the fact to be explained is sufficient proof of the explanation, we might with equal justice assume that the movement was caused by an invisible dragon who turned the table by the fanning of his awful wings. If it is permissible to draw material from the Subject, and to make such assumption valid as regards objects, our right to assume the dragon is on a par with our right to assume the spirit.

A similar initial error is observable in the electrical hypothesis. Electricity may be a less intrinsically improbable assumption, but its presence requires proof. After that step had been taken, we should require proof that electricity could comport itself with reference to tables and similar bodies in this particular manner. We have various tests for the presence of electricity; various means of ascertaining how it would act upon a table. But seeing that the gentleman who spoke so confidently of 'currents issuing from the tips of the fingers' never once attempted to prove that there *were* currents; and knowing moreover that these currents, if present, would *not* make a table turn, all men of true scientific culture dismissed the explanation with contempt.

Such were the metaphysical explanations of the phenomenon. They are vitiated by their Method. Very different was that pursued by men of science. The object sought was the unknown cause of the table's movement. To reach the unknown we must pass by the Objective Method through the avenues of the known; we must not attempt to reach it through the unknown. Is there any known fact with which this movement can be allied? The first and most obvious suggestion was that the table was pushed by the hands which rested on it. There is a difficulty in the way of this explanation, namely, 'that the persons declare solemnly they did *not* push; and, as persons of the highest respectability, we are bound to believe them.' Is this statement of any value? The whole question is involved in it. But the philosophical mind is very little affected by guarantees of respectability in matters implicating sagacity rather than integrity. The Frenchman assured his friend that the earth did turn round the sun, and offered his *parole d'honneur* as a guarantee; but in the delicate and difficult question of science, *paroles d'honneur* have a quite inappreciable weight. We may therefore set aside the respectability of the witnesses, and, with full confidence in their integrity, estimate the real value of their assertion, which amounts to this: they were *not conscious* of pushing. If we come to examine such a case, we find Physiology in possession of abundant examples of muscular action unaccompanied by distinct consciousness, and some of these examples are very similar to those of the unconscious pushing, which may have turned the table; and we are thus satisfied of three important points:—1. Pushing is an adequate cause, and will serve as well as either the supposed spirit or electricity to explain the movement of the table. 2. Pushing *may* take place without any distinct consciousness on the part of those who push. 3. Expectant attention is known to produce such a state of the muscles as would occasion this unconscious pushing.

Considered therefore as a mere hypothesis, this of unconscious pushing is strictly scientific; it may not be true, but it has fulfilled the preliminary conditions. Unlike the two hypotheses it opposes, it assumes nothing previously unknown, or not easily demonstrable; every position has been or may be verified; whereas the metaphysicians have not verified one of their positions: they have not proved the presence of their agents, nor have they proved that these agents, if present, would act in the required manner. Of spirit we know nothing, consequently can predicate nothing. Of electricity we know something, but what is known is *not* in accordance with the table-turning hypothesis. Of pushing we know that it can and does turn tables. All then that is required to convert this latter hypothesis into scientific certainty, is to prove the presence of the pushing in this particular case. And it is proved in many ways, positive and negative, as I showed when the phenomenon first became the subject of public investigation. Positive, because if the hands rest on a loose table-cloth, or on substances with perfectly smooth surfaces which will glide easily over the table, the cloth or the substances will move, and not the table. Negative, because if the persons are duly *warned* of their liability to unconscious pushing, and are told to keep vigilant guard over their sensations, they do not move the table, although previously they may have moved it frequently. When we have thus verified the presence of unconscious pushing, all the links in the chain have been verified, and certainty is complete.

§ 23. Reviewing the three explanations which the phenomenon of table-turning called forth, we elicit one characteristic as distinguishing the scientific or Objective Method, namely, the *verification* of each stage in the process, the guaranteeing of each separate point, the cultivated caution of proceeding to the unknown solely through the avenues of the known. The *germinal* difference, then, between the metaphysical and scientific Methods, is not that they draw their explanations from a different source, the one employing Reasoning where the other employs Observation, but that the one is content with an explanation which has no further guarantee than is given in the logical explanation of the difficulty; whereas the other imperatively demands that every assumption should be treated as provisional, hypothetical, until it has been confronted with fact, tested by acknowledged tests, in a word, *verified.* The guarantee of the metaphysician is purely logical, subjective: it is the *intellectus sibi permissus*; the guarantee of the other is derived from a correspondence of the internal with the external order. As Bacon says, all merely logical explanations are valueless, the subtlety of nature greatly surpassing that of argument: 'Subtilitas naturæ subtilitatem argumentandi multis partibus superat;' and he further says, with his usual felicity, 'Sed axiomata à particularibus ritè et ordine abstracta nova particularia rursus facilè indicant et designant.' It is these 'new particulars' which are reached through those already known, and complete the links of the causal chain.

Open the history of Science at any chapter you will, and its pages will show how all the errors which have gained acceptance gained it because this important principle of verification of particulars was neglected. Incessantly the mind of man leaps forward to 'anticipate' Nature, and is satisfied with such anticipations if they have a logical consistence. When Galen and Aristotle thought that the air circulated in the arteries, causing the pulse to beat, and *cooling* the temperature of the blood, they were content with this plausible anticipation; they did not verify the facts of the air's presence, and its cooling effect; when they said that the 'spirituous blood' nourished the delicate organs, such as the lungs, and the 'venous blood' nourished the coarser organs, such as the liver; when they said that the 'spirit,' which was the purer element of the blood, was formed in the left ventricle, and the venous blood in the right ventricle, they contented themselves with unverified assumptions. In like manner, when in our own day physiologists of eminence maintain that in the organism there is a Vital Force which suspends chemical actions, they content themselves with a metaphysical unverified interpretation of phenomena. If they came to rigorous confrontation with fact, they would see that so far from chemical action being 'suspended' it is incessantly at work in the organism; the varieties observable being either due to a difference of conditions (which will produce varieties out of the organism), or to the fact that the action is masked by other actions.

§ 24. If the foregoing discussion has carried with it the reader's assent, he will perceive that the distinguishing characteristic of Science is its Method of graduated Verification, and not, as some think, the employment of Induction in lieu of Deduction. All Science is deductive, and deductive in proportion to its separation from ordinary knowledge, and its co-ordination into System. The true antithesis is not between Induction and Deduction, but between verified and unverified cases of Induction and Deduction. The difference between the ancient and modern philosophies lies in the facility with which the one accepted axioms and hypotheses as the basis for its deductions, and the cultivated caution with which the other insists on verifying its axioms and hypotheses before deducing conclusions from them.* We guess as freely as the ancients; but we know that we are guessing; and if we chance to forget it, our rivals quickly remind us that our guess is not evidence. Without guessing, Science would be impossible. We should never discover new islands, did we not often venture seawards with intent to sail beyond the sunset. To find new land, we must often quit sight of land. As Dr. Thomson admirably expresses it:—'Philosophy proceeds upon a system of credit, and if she never advanced beyond her tangible capital, our wealth would not be so enormous as it is.'† While both metaphysician and man of science trade on a system of credit, they do so with profoundly different views of its aid. The metaphysician is a merchant who speculates boldly, but without that convertible capital which can enable him to meet his engagements. He gives bills, yet has no gold, no goods to answer for them; these bills are not representative of wealth which exists in any warehouse. Magnificent as his speculations seem, the first obstinate creditor who insists on payment makes him bankrupt. The man of science is also a venturesome merchant, but one fully alive to the necessity of solid capital which can on emergency be produced to meet his bills; he knows the risks he runs whenever that amount of capital is exceeded; he knows that bankruptcy awaits him if capital be not forthcoming.

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* Mr. Bayma, *Molecular Mechanics*, 1866, p. 3, speaks of those 'modern thinkers who despise the deductive method as a useless relic of the past.' They must be very shallow thinkers who do not see that it is the Subjective, not the Deductive, Method which is the useless relic of the past.

† Thomson: *Outlines of the Laws of Thought*, p. 312.

§ 25. Astronomy became a science when men began to seek the unknown through the known, and to interpret celestial phenomena by those laws which were recognised on the surface of the earth. Geology became possible as a science when its principal phenomena were explained by those laws of the action of water, visibly operating in every river, estuary, and bay. Except in the grandeur of its sweep, the mind pursues the same course in the interpretation of geological facts which record the annals of the universe, as in the interpretation of the ordinary incidents of daily life. To read the pages of the great Stone-book, and to perceive from the wet streets that rain has recently fallen, are the same intellectual processes. In the one case the mind traverses immeasurable spaces of time, and infers that the phenomena were produced by causes similar to those which have produced similar phenomena within recent experience; in the other case, the mind similarly infers that the wet streets and swollen gutters have been produced by the same cause we have frequently observed to produce them. Let the inference span with its mighty arch a myriad of years, or span but a few minutes, in each case it rises from the ground of certain familiar indications, and reaches an antecedent known to be capable of producing these indications. Both inferences may be wrong: the wet streets may have been wetted by a water-cart, or by the bursting of a pipe. We cast about for some other indication of rain besides the wetness of the streets and the turbid rush of gutters, which might equally have been produced by the bursting of a water-pipe. If we see passers-by carrying wet umbrellas, some still held above the head, our inference is strengthened by this indication, that rain, and no other cause, produced the phenomena. In like manner, the geologist casts about for other indications besides those of the subsidence of water, and as they accumulate, his conviction strengthens.

§ 26. While this is the course of Science, the course of Metaphysics is very different. Its inferences start from no well-grounded basis; the arches they throw are not from known fact to unknown fact, but from some unknown to some other unknown. Deductions are drawn from the nature of God, the nature of Spirit, the essences of Things, and from what Reason can postulate. Rising from such mists, the arch so brilliant to look upon is after all a rainbow, not a bridge.

To make his method legitimate, the metaphysician must first prove that a co-ordinate correspondence exists between Nature and his Intuitional Reason,* so that whatever is true of the one must be true of the other. The geologist, for example, proceeds on the assumption that the action of waters was essentially the same millions of years ago as it is in the present day; so that whatever can be positively proved of it *now*, may be confidently asserted of it *then*. He subsequently brings evidence to corroborate his assumption by showing that the assumption is necessary and competent to explain facts not otherwise to be consistently explained. But does the metaphysician stand in a similar position? Does he show any validity in his preliminary assumption? Does he produce any evidence for the existence of a nexus between his Intuitional Reason and those noumena or essences, about which he reasons; does he show the probability of there being such a correspondence between the two, that what is true of the one may be accepted as probable of the other? Nothing of the kind. He assumes that it is so. He assumes, as a preliminary to all Philosophy, that Intuitional Reason is competent to deliver verdicts, even when the evidence is entirely furnished by itself. He assumes that his Intuitions are face to face with Existences, and have consequently immediate knowledge of them. But this immense assumption, this gratuitous begging of the whole question, can only be permitted after a demonstration that the *contrary* assumption must be false. Now it is certain that we can assume the contrary, and assume it on evidence as cogent as that which furnishes his assumption. I can assume that Intuitions are not face to face with Existences; indeed this assumption seems to me by far the most probable; and it is surely as valid as the one it opposes? I call upon the metaphysician to prove the validity of his assumption, or the invalidity of mine. I call upon him for some principle of verification. He may tell me (as in past years the Hegelians used to tell me, not without impatience) that 'Reason must verify itself;' but unhappily Reason has no such power; for if it had, Philosophy would not be disputing about first principles; and when it claims the power, who is to answer for its accuracy, *quis custodiet ipsos custodes*? If Ontology is possible, its only basis rests on the *assumed* correspondence of the external and internal orders, a basis shown by Psychology to be excessively treacherous. If all concepts are reducible to percepts, and our widest generalisations are only Re-presentations of what originally was Presentation, Ontology has no standing place. Its data are figments—subjective constructions in which formal elements are transmuted into material elements, relations are transformed into objects, abstractions are personified and endowed with reality.

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* By Intuitional Reason I here wish to express what the Germans call *Vernunft*, which they distinguish from *Verstand*, as Coleridge tried to make Englishmen distinguish between Reason and Understanding. The term Reason is too deeply rooted in our language to be twisted into any new direction; and I hope by the unusual 'Intuitional Reason' to keep the reader's attention alive to the fact that by it is designated the process of the mind engaged in transcendental enquiry.

§ 27. The objects with which Ontology concerns itself do not admit of Presentation (*Anschauung*), consequently its conclusions are incapable of being verified. We can never know whether the assumed correspondence between the order in our thoughts and the order in things is a real correspondence. For example, Cause is a concept constructed out of formal elements—an inference which posits the reality of something over and above the unconditional antecedence and sequence given in Experience. Let us admit the reality; we cannot safely proceed beyond the inference; we cannot justify our transformation of this inference into an object having knowable qualities; we are not entitled to found inferences on this inference. Cause then remains a nebulous thought. If we attempt to define it our definitions will be arbitrary; if attempt to deduce from it, our deductions will be figments. Herein lies the distinction between Mathematics and Metaphysics: the one can, and the other cannot, be reduced to Presentation; the one has, and the other has not, an objective basis and a constant verification. The material elements of Mathematics are physical facts gained through Sense; the formal elements are simply serial dispositions of the objects; and thus the widest reaches of mathematical speculation are only the *writing out* of objective knowledge, the development of identical propositions.*

§ 28. Metaphysicians proceed on the assumption that Intuitional Reason, which is independent of Experience, is absolute and final in its guarantee. The validity of its conclusions is self-justified. Hegel boldly says, 'Whatever is rational is real, and whatever is real is rational,—*das Vernünftige ist wirklich und das Wirkliche vernünftig.*' And writers of less metaphysical rigour frequently avow the axiom, and always imply it. Thus in a remarkable article on Sir W. Hamilton, which appeared in the 'Prospective Review,' we read that Philosophy in England has dwindled down to mere Psychology and Logic, whereas its proper business is with the notions of Time, Space, Substance, Soul, God; "to pronounce upon the validity of these notions as revelations of real Existence, and, if they be reliable, use them as a bridge to cross the chasm from relative Thought to absolute Being. Once safe across, and gazing about it in that realm, the mind stands in presence of the objects of Ontology.'

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* On the contrast between Mathematics and Metaphysics, see the admirable essay of KANT: *Untersuchungen über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral*; and APELT: *Die Metaphysik*, § 6. Compare MANSEL: *Metaphysics*, p. 285. I have argued the point more fully in the chapter on Spinoza, vol. ii. pp. 211-215.

'Once safe across;' this is indeed the step which constitutes the whole journey; unhappily we have no means of getting safe across; and in this helplessness we had better hold ourselves aloof from the attempt. If a man were to discourse with amplitude of detail and eloquence of conviction respecting the inhabitants of Sirius, setting forth in explicit terms what they were like, what embryonic forms they passed through, what had been the course of their social evolution and what would be its ultimate stage, we should first ask, And pray, Sir, what *evidence* have you for these particulars? what guarantee do you offer for the validity of these conclusions? If he replied that Intuitional Reason assured him these things must be so from the inherent necessities of the case, he having logically evolved these conclusions from the data of Reason; we should suppose him to be either attempting to mystify us, or to be hopelessly insane. Nor would this painful impression be removed by his proceeding to affirm that he never thought of trusting to such fallacious arguments as could be furnished by Observation and Experiment—tests wholly inapplicable to objects so remote from all experience, and accessible only by Reason.

In the present day, speculations on the Metaphysical Method are not, intrinsically, more rational than theories respecting the development of animated beings peopling Sirius; nay, however masked by the ambiguities of language and old familiarities of speculation, the attempt is really less rational, the objects being even less accessible. Psychology has taught us one lesson at least, namely, that we cannot know causes and essences, because Experience is limited to sequences and phenomena. Nothing is gained by despising Experience, and seeking refuge in Intuitional

Reason. The senses may be imperfect channels, but at any rate they are in direct communication with their objects, and are true up to a certain point. The error arising from one sense may be corrected by another; what to the eye appears round, the hand feels to be square. But Intuitional Reason has no such safeguard. It has only itself to correct its own errors. Holding itself aloof from the corroborations of Sense, it is aloof from all possible verification, because it cannot employ the test of confrontation with fact.

This conviction has been growing slowly. It could never have obtained general acceptance until the Metaphysical Method had proved its incapacity by centuries of failure. In the course of our History we shall see the question of Certitude continually forced upon philosophers, always producing a crisis in speculation, although always again eluded by the more eager and impatient intellects. Finally, these repeated crises disengage the majority of minds from so hopeless a pursuit, and set them free to follow Science which *has* Certitude.

§ 29. History with overwhelming evidence proves the incompetence of the Subjective Method; Psychology with irresistible force displays the cause. It is a common mistake to suppose that this Method is followed by metaphysicians exclusively; they, indeed, have uniformly employed it, and were forced by the nature of their enquiries to employ it; but savans unhappily have shown a fatal facility in employing it likewise, and have thereby obstructed the advance of knowledge. All we can say is that only on the Objective Method has Science been successful; because only by the verification of conceptions can Truth—which is the correspondence of the internal and external orders—be reached.

With the validity of the Subjective Method stands or falls the truth of Metaphysics, since that is the Method which alone can be employed in such enquiries. There are three grand divisions of Metaphysics, and these are Psychology, Cosmology, and Theology. It is possible to treat all three on the Objective Method by restricting them to their corresponding phenomena, and waiving all enquiry into essential causes; but this is Science, and for the present we are dealing with Metaphysics; we will therefore follow Wolf, and adopt the scholastic terms Rational Psychology, Rational Cosmology, and Rational Theology. And as many of my readers will probably be more disposed to accept Mr. Mansel's criticism of these delusive efforts to transcend Experience, than a criticism from the positive point of view, I will here borrow his remarks :—

'The aim of Rational Psychology is to frame definitions exhibiting the essential nature of the soul and its properties, as realities conceived by the intellect, underlying and implied by the phenomena presented in consciousness; and to prove by a demonstrative process that the notions thus defined necessarily flow one from another. Psychology is thus raised from a science of observation to one of demonstration;' [more accurately, from a science of observation to one of inference and deduction from inferences] 'and its objects are transformed from phenomena presented in experience to realities contemplated by the intellect. The soul, by virtue of its essential nature as a simple substance, is shown to possess, of necessity, certain attributes as rationally conceived and defined—such as sense, imagination, intelligence, will, spirituality, indestructibility, and so forth; and the same conclusions are even demonstrated of other spiritual natures which partake of the generic attribute of the soul.' Mr. Mansel hereupon observes :—'The weakness of the whole process is that it tacitly postulates as its starting-point a principle which is neither evident in itself, nor such as can be made evident by any process of thought. It assumes, that is to say, a transcendental definition of the real nature of the soul beyond and above the facts and relations which are manifested in consciousness. But how is the truth of such a definition to be guaranteed? Of the soul as a simple substance, apart from its particular modification, consciousness tells us nothing. How then is the abstract conception of the nature of the soul to be verified? It cannot be self-evident; for self-evidence is nothing more than the instantaneous assent of consciousness; and the assumption in question cannot be submitted to the judgment of consciousness at all. It cannot be demonstrable; for it could only be demonstrated by the assumption of a higher notion of the same kind, concerning which the same question would then have to be raised. It cannot be generalised from experience; for experience deals with the facts of consciousness only, and tells us not of what *must be*, but only of what *is* or *seems to be*. Unable to verify his fundamental definition by any reference to the reality which it is supposed to represent, the metaphysician is compelled to confine himself to the relations of the language by which it is represented.' *

Mr. Mansel then examines Rational Cosmology, showing that it can 'contain nothing more than an analysis of general notions, and can lead to no conclusions but such as the philosopher has himself virtually assumed in his premises. The abstract notion of the world contains implicitly whatever attributes we choose to assume as its constituents; and the metaphysical or logical analysis of that notion can contain no more.'

Still more incisive is his criticism on Rational Theology, which starts from a nominal definition of the Deity. 'How do we know,' he asks, 'that our conception at all corresponds to the nature of the Being whom it professes to represent?'

§ 30. It is the slow rise of the Objective Method and its gradual extension into regions formerly occupied by the Subjective Method which this History will have to exhibit; and the exposition will be twofold, showing the failures of the one Method and the successes of its rival. Thus will be established the conclusion that no problem merits our attention unless its solution is verifiable, and all problems are unverifiable on the Subjective Method.

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* MANSEL: *Metaphysics*, p. 293.

But on what does Verification rest? Before this can be answered it is requisite to discuss the much debated question of the origin of knowledge, Have we any higher source than Experience? Is there a fountain of Truth which springs from a source independent of Experience? I shall have to treat this question by and by, but it is needful first to consider the nature of our Test of Truth.

III. THE TEST OF TRUTH.

§ 31. **Truth** being the correspondence between the internal and external order, what is the test of that correspondence? Widely as philosophers differ respecting the origin and scope of knowledge, they are unanimous in affirming that the ultimate test must lie in the verdict of Consciousness, whether the verdicts of Consciousness are, or are not, conformable with Objective Reality. Now Consciousness is a word of delusive vagueness, and moreover some of its 'verdicts' are confessedly false; the question thus arises, Which are certainly true? Metaphysicians implicitly, and sometimes explicitly,[*] assume that all 'clear and distinct ideas' are true; an assumption which ill accords with the clearness and distinctness of hallucinations, and many false hypotheses. But those who are unprepared for so facile and delusive an answer as this, and who recognise that Consciousness may on occasions deliver false verdicts, desire to fix some criterion of its infallibility, *when* it is infallible.

A startling result discloses itself: Consciousness is only infallible in verdicts limited to identical propositions, or perhaps the better phrase would be propositions of equivalence, e. g. 'A is A,' 'whatever is, is.'[†] Here, and only here, there is no fallibility. No possibility of error weakens an identical proposition. Unhappily this immunity from error accompanies an infertility of knowledge. It cannot serve as guidance, for it leads nowhither. Its security is imperilled by the first step in advance; for no sooner is one thing affirmed of another, than, with this commencement of knowledge, fallibility of judgment commences: what is affirmed may be erroneously affirmed; the door has been opened, and error may creep in stealthily, or stalk in imperiously. Our only resource is vigilance: we challenge every object that presents itself, no matter how insignificant its aspect, and force it to declare its quality. This vigilance is Verification, or the ascertainment that every object *is* what it declares itself to be. The famous *principium identatis* is not indeed a *guide*, but it is a *test*.* Hegel, denying that it is a law of thought (allowing it only as 'a law of the abstract understanding,)' affirms that 'no man thinks or speaks according to this law; to say that a planet is a planet and magnetism is magnetism every one holds to be frivolous.'† Perhaps so; and Locke styled such propositions 'frivolous:'‡ nevertheless, the whole stress of Verification consists in reducing propositions to identity or equivalence.

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[*] As the Cartesians. It is thus boldly stated by Tschirnhausen: 'verum est quidquid concipi potest; falsum vero quod non concipi potest.'—*De Medicinâ Mentis*, 1687, quoted by Ueberweg: *Logik*. This canon receives its full illustration in Hegel.

[†] χρὴ τὸ λέγειν τε νοεῖν τ' ἐὸν ἔμμεναι. Parmenides: Fragm. v. 43.

Error arises with Inference, being indeed nothing but the misstatement of the correspondence between what is inferred and what exists. Only two ways of correcting this misstatement are open; and I formerly called them respectively the Real Test and the Ideal Test. The first is a reduction of the inference to a sensation (§ 15). The second is a reduction of the inference to a necessity of thought. Both are reductions to identical or equivalent propositions, which render their negatives unthinkable. The certainty of feeling *as* feeling cannot be disturbed. It is limpid evidence. If I feel cold, I may indeed err as to the external cause of my feeling, but not as to the feeling itself. The markings of a thermometer may assure me that the temperature of my body during an ague-fit is higher than usual; but feeling is its own thermometer, and I am not mistaken in reading its indications when I simply say I *feel* colder, not hotter.

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* 'Es ist ein Princip des fixirenden Verstandes, nicht der erzeugenden Anschauung; der festen Ruhe, nicht der flüssigen Bewegung.' TRENDELENBURG: *Logische Untersuchungen*, 1862. ii. 155.

† HEGEL: *Encyclopädie*, § 115.

‡ Comp. MANSEL: *Prolegomena Logica*, p. 191.

§ 32. This may seem somewhat trite; but if we follow the clue it will lead us to large issues, one of them being the principle that the infallibility of Consciousness in each instance is the impossibility of a negative being thought. No one denies that an identical proposition is irresistible. Even Hegel, who, among other feats of logical legerdemain, showed that 'Every A is at the same time not A,' did not deny that A was A whatever else it might be.

Identical propositions are frivolous when offered as enlargements of knowledge, but not when appealed to as tests of certainty. Condillac, who makes all reasoning consist in a translation of identical propositions, distinguishes between those which are frivolous because their identity is that of terms, and those which are serious because their identity is that of ideas. Thus to say 'six is six,' teaches nothing, being only an iteration of the term; but to say 'three added to three yield six' enlarges knowledge, by disclosing the same ideas under diversity of terms. 'When we judge two men to be of equal size, we see one thing in the two things we compare, that is to say, one size in two men, and we form an identical proposition.'* It would be more correct to say that the identity here disclosed is that of *relation*; the ideas of three and three, and of six, and of man and man are diverse, not identical: the terms 'three and three' and 'six' *de*note the same relations, *con*note different ideas. The relations are equivalent.

Our knowledge begins with the discernment of resemblances and differences: it ends in the establishment of *equations*, which are the resemblances abstracted from the differences, and raised into equivalents. At first sight no one would conclude that $2+1$ was the same as $4-1$: terms and ideas are obviously different; but that an equality exists we easily disclose: thus $2+1=3$, and $4-1=3$, and the identity becomes visible in the final equation, 3 = 3.* If I say 'Man is Man,' it is an identical but uninstructive proposition, having, however, irresistible certainty, because the negative is unthinkable. If I say 'Man is an Animal,' it is by an equation with abstraction of differences, which may possibly be erroneous and only acquires irresistible force, when an equivalence in the terms Man and Animal is disclosed. That if a force of 7 will produce a velocity of 3, another force of 21 will produce a velocity of 9 is an identical proposition, although the identity has to be disclosed in an equation: we cannot say that the ideas of 7, 21, 3, and 9 are the same; but we say that the relation of 7 to 21 being $\frac{1}{3}$, and the relation of 3 to 9 being also $\frac{1}{3}$, then 3 = 3 = A is A. It is in the unfolding of such identities—the exhibition of uniform relations under different signs—that mathematics, and indeed all science, consists. Mr. Herbert Spencer has shown with masterly clearness how the establishment of relations of Likeness is the process of all reasoning—passing from Likeness to Identity, as it passes from qualitative to quantitative reasoning.† And the history of Science is the history of this process, tending towards that goal conceived by D'Alembert when he said, 'L'univers, pour qui saurait l'embrasser d'un seul point de vue, ne serait, s'il est permis de le dire, qu'un fait unique et une grande vérité.' We have already reached the sublime height of regarding all phenomena simply as modifications of each other, capable of being substituted for each other, being, indeed, only different *expressions* of equivalent *relations*, different *signs* of the same *quantities*. This is the grand doctrine of equivalents, which is illustrated in the convertibility of forces. It penetrates beneath the diversities of expression, and searches out the identities of nature.

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* CONDILLAC: *Langue des Calculs*, p. 64. Compare also D'ALEMBERT: *Discours Préliminaire.*

The establishment of equations through abstraction of differences is the product of all reasoning. When the proposition A = B is first presented, it is by no means an identical one: the obvious diversities in the two terms allow me to infer that the resemblances are by no means so great as to amount to *equivalence.* I can therefore easily think the negative of the proposition. But after repeated demonstration of this equivalence (A being indifferently used for B, and B for A, without variation in the result), the resemblance is seen to be so complete that it amounts to identity, and then the negative is unthinkable. To *establish* identity under variety is the office of Investigation; to *exhibit* it is the office of Proof.

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* Comp. DELBŒUF: *Logique scientifique*, p. 127.

† HERBERT SPENCER: *Principles of Psychology*.

§ 33. It will doubtless have occurred to the reader, that since Consciousness is the ultimate ground of appeal, and since Consciousness can never transcend its own sphere, we cannot possibly have a test of Objective Truth. In one sense this is correct. We never can know more than states of Consciousness, we cannot know Objects *per se.* But to reach the Truth we have no need for deeper knowledge, since Truth is simply *correspondence* between the internal and external order. That correspondence enables us to adjust our actions to external necessities; and we assure ourselves of its accuracy by the certainty of the adjustment. The touchstone of knowledge is *prevision.* I shall shortly have to consider the nature of the proofs which assure us that the subjective order is similar to the objective order; but for the present it is enough to have shown that the subjective test of a Truth is the unthinkableness of its negative, in other words, the reduction to A is A.

If this disclosure startles and discomposes the reader, the fault will lie with his exaggerated pretensions to infallible knowledge, which may be regarded as one of the disastrous errors of Philosophy. Instead of being contented with that degree of relative certainty which contents Science, and which permits prevision, and the adjustments consequent on prevision, Philosophy has been restless under the suggestion doubt, and has required that its positions should not only impregnable but unassailable. There are many questions yond the reach of demonstration. The existence of an external world, for instance, cannot be proved, if the highest degree of probability is rejected as insufficient. This has been declared a scandal to Philosophy; but the scandal lies in the demand for proof—the desire for better bread than can be made of wheat. We should interdict the question from being asked in terms that cannot be answered; it has no claim to be discussed, because the evidence on which it could be decided is not within the compass of human faculty. No astronomer would attend to the sceptic who should maintain that the law of gravitation was only an hypothesis, capable indeed of colligating the facts so that calculations accurately agreed with observation, and prevision was equal to vision, yet nevertheless, *in itself*, the process formulated in the law might be very different. The astronomer would rebuke such purposeless doubt, and would reply that the hypothesis had the highest degree of probability and the highest scientific effectiveness, so long as it was the basis of exact calculation, and received the corroboration of Observation; let a new hypothesis be proposed which exceeds it in reach and in accuracy, and the old one will give way; and not till then. In like manner the hypothesis of an external world carries conviction, and will not be disturbed until proved unsuitable to our needs.

As there is always room for error wherever the proposition is not identical, and as probability of varying degrees is all that can be attained in the majority of our conclusions, it is easy to extend the logical principle which determines infallibility, where error is impossible, to the varying degrees of probability, where error is possible. That which is the logical justification of A is A, namely, the *impossibility* of thinking its negative—is also the justification of a proposition constructed out of complex and remote inferences, which have therefore only more or less probability, *i.e.*, a *difficulty* in admitting its negative. For, what is the meaning of probability? The harmony of a conclusion with other and better established conclusions: the likeness in phenomena to other well-known phenomena. When this likeness is ascertained to be complete, when the analogy is proved to be an equivalence, then probability gives place to certainty.

§ 34. A formidable opponent must now be met, and his challenge answered, before we can venture to proceed to the second part of this inquiry. That opponent is Mr. Stuart Mill, who, both in his *Logic* and in his work on *Hamilton*, argues at great length against the unthinkableness of a negative as any test at all. He considers it a lingering remnant of Metaphysics; and in his work on *Comte* expresses his surprise at finding Mr. Herbert Spencer and myself in company on this point with metaphysicians. At which *we* also feel surprised. Mr. Spencer has replied to Mr. Mill in the *Fortnightly Review* (vol. 1. p. 521–550); in the sixth edition of his *Logic*, Mr. Mill has replied to the reply. I shall only touch upon such points as concern my present purpose.

Throughout the discussion Mr. Mill seems to be attacking the supposition that inconceivableness implies non-existence —that what is unthinkable cannot exist. But this does not touch us.

> 'Let the galled jade wince:
> Our withers are unwrung.'

If Mr. Spencer's language seems occasionally equivocal, the whole scope and spirit of his speculations sufficiently proclaim his restriction of knowledge to relative knowledge, and consequently of every test as relative. He has thus forcibly stated his opinion: 'Conceding the entire truth of the position that, during any phase of human progress, the ability or inability to form a specific conception wholly depends on the experience men have had; and that, by a widening of their experiences, they may, by-and-by, be enabled to conceive things before inconceivable to them; it may still be argued, that as at any time the best warrant men can have for a belief is the perfect agreement of all pre-existing experience in support of it, it follows that, at any time, the inconceivableness of its negation is the deepest test any belief admits of. Objective facts are ever impressing themselves upon us; our experience is a register of these objective facts; and the inconceivableness of a thing implies that it is wholly at variance with the register. Even were this all, it is not clear how, if every truth is primarily inductive, any better test of truth could exist. But it must be remembered, that whilst many of these facts impressing themselves upon us are occasional; whilst others, again, are very general; some are universal, and are unchanging. These universal and unchanging facts are, by the hypothesis, certain to establish beliefs of which the negations are inconceivable; whilst the others are not certain to do this; and if they do, subsequent fact will reverse their action. Hence if, after an immense accumulation of experiences, there remain beliefs of which the negations are still inconceivable, most, if not all of them, must correspond to universal objective facts.'

On this Mr. Mill remarks: 'If our incapacity to conceive the negation of a given supposition is proof of its truth, because proving that our experience has hitherto been uniform in its favour, the real evidence for the supposition is not the inconceivableness, but the uniformity of experience. Now this, which is the substantial and only proof, is directly accessible. We are not obliged to assume it from an incidental consequence. If all past experience is in favour of a belief, let this be stated and the belief openly rested on that ground; after which the question arises, what that fact may be worth as evidence of its truth?'

§ 35. The first remark needful to be made on this controversy is, that since we all three are thoroughly agreed in maintaining Experience and Experience only, to be the ground of knowledge, and the Test of Truth to be necessarily an expression of that Experience, there can be little real opposition between us, in spite of some differences in language. Mr. Mill says, that the evidence for a proposition is the uniformity of Experience; we say the same, and add, that inasmuch as this uniformity renders the negative unthinkable, it is this unthinkableness of the negative which becomes the Test of Truth. No validity is gained in adducing uniformity of Experience, unless there is a warrant that the experiences which are uniform are themselves beyond question; and this warrant is the unthinkableness of their negation. That some ambiguity will attach itself to the phrase 'unthinkable,' must be admitted: ambiguities are not to be avoided; and they are even more plentiful if we adopt 'uniformity of experience,' for that often fails to express the fact. 'A is A,' does not rest on 'uniformity,' but on intuition. My belief in my feeling as feeling, is as irresistible in one case as after a thousand repetitions. My belief that a body in motion will move for ever, and in a straight line, unless it be influenced by some other body, is a generalisation from Experience, the negative of which is unthinkable as soon as the proposition is clearly apprehended; but it cannot without ambiguity be called an uniformity of Experience, inasmuch as experiences seem momently to contradict it, and this seeming contradiction is only reconciled by an *abstraction of the differences.* Moreover, the test of uniformity can never be irresistible, because a possible diversity is not excluded. The test of identity is irresistible, and excludes all possibility of reversal. A is A for evermore. Not only are there many occasions on which the 'unthinkableness of the negative' is a less ambiguous phrase than 'uniformity of Experience,' but, inasmuch as there are two schools in Philosophy, holding different views respecting the origin of knowledge, one school affirming it to be co-extensive with Experience, the other school affirming it to have an additional source antecedent to and independent of Experience, a Test of Truth ought to find its place in both schools: and this place is found by our Test. So long as discussion is confined to concrete questions, 'uniformity of Experience' is as good a test as any; but no sooner does discussion turn upon certain abstract questions, *e.g.*, of Force, then the test of the unthinkable negative resumes its superiority.

Every objection that can be alleged against 'unthinkableness' may equally be alleged against 'uniformity.' That which is unthinkable may turn out to be thinkable, that which has been uniform experience may become diversified.

The examples cited of beliefs once universal and now universally rejected, are examples of mistaken reliance on uniformity, and of unthinkableness rashly concluded where no equivalence had been established, because the elements were not such as then admitted of an equation. It is urged that men once believed the sun to move round the earth, and that, when they did so, 'the contrary was inconceivable;' yet we now know that 'inconceivable' to be true. I answer: When men affirmed that they saw the sun moving from east to west, and revolving round the earth, they affirmed a truth, a subjective, relative truth, indeed, but one which being translateable into an identical proposition, was placed beyond the assaults of scepticism, and must survive all the changes of Science. What was that truth? It was, that they saw the sun moving, *i.e.*, they had certain impressions from certain definite appearances, which followed in a definite order. The fact of their having these impressions was indisputable. How far the actual order corresponded with these impressions, how far their inferences were right or wrong, it was for Science to determine. It did so, by proving that these inferences wanted the character of equivalence on which certainty reposes, and by showing that other inferences gave a more consistent explanation. The belief in the *appearance* of the sun's motion continues, and will for ever continue, for it is a truth the negation of which is unthinkable; but the belief in the *cause* of that appearance, (which is only an inference,) will vary as explanations vary: at each stage the only absolute ground of certainty is the reduction of every inference to sensation or to a necessity of thought; and where this ground cannot be reached, our only ground is *probability*, or such harmony of our explanation with established truths as compels conviction, and thus, for the time, renders the negative if not unthinkable, yet so difficult of acceptance as to be almost equivalent to it. When asked why a man believes that two multiplied by three gives six as the product, the answer is, Because he must, an alternative is impossible, the negative is unthinkable; he has discovered the equivalence of the relations. If asked why he believes that chemical combinations are uniformly dependent on vibratory calorific actions, the answer likewise will be, Because he must, the negative is unthinkable now that the equivalence of the relations has been exhibited to him. *Before* that exhibition, he would have had no more difficulty in thinking the negative, than he would have had in thinking the product of two multiplied by three was five before he had ascertained that the relations of multiplied numbers were not the relations of added numbers. The numerical identity is seen to be absolute, whereas the identity of heat and affinity may, in the present state of science, be considered as hypothetical. Nevertheless in each case the Test applies.

There are, notoriously, cases of inseparable association determined by the structure of our minds, such as no enlargement of experience could loosen, no subtler analysis dissolve, unless the structure of the mind itself were altered. There are also cases of association which are loosened by the recognition of a mistake in the supposition of identity. We supposed that the thunder was identical with the explosion of wrath, and we associated with it the idea of an angry deity, until the recognised identity of thunder and electricity, severed the association. Finally, it is notorious that our experience, even when uniform, is narrow; so that, when a man affirms anything on the guarantee of its negative being unthinkable, we can disturb his confidence by showing that the negative *is* thinkable, and conformable with a wider experience.

§ 36. Mr. Mill has noticed several of the inevitable ambiguities of language; yet he has not always succeeded in disentangling himself from them; as, for example, in his objection to Mr. Spencer's assertion that when he feels cold he cannot conceive himself not feeling cold. Mr. Mill replies by saying, that he *can* conceive himself not feeling cold; and that he can imagine himself looking into darkness at the very moment that he is actually looking at the sun. The ambiguity of language here permits him to say this, although all that it lawfully expresses is, that while he looks at the sun he can imagine himself (under *other* conditions) to be looking into darkness; just as it is possible for his thoughts to wander to Nova Zembla while he is sauntering down Regent Street. What Mr. Spencer meant to say was, that during the state of consciousness produced by his looking at the sun, it is impossible for the opposite state of consciousness to emerge; and this Mr. Mill has not answered, nor would he attempt to answer it.

§ 37. This digression ended, we may proceed to the second and more important part of the inquiry: the correspondence of the subjective and objective, as disclosed by our Test.

'Truth relatively to man cannot be defined as consisting in the conformity of knowledge with its object; for to man the object itself exists only as it is known by one faculty or another.'* This is the old sceptical position, that the agreement can only be agreement of ideas. Kant adopts it, by affirming that an universal *material* criterion is impossible, because the conception implies a contradiction, but a *formal* criterion is possible, that being simply the agreement of ideas.†

These and other perplexing suggestions are set aside by our regarding Truth as the correspondence between the order of ideas and the order of things; whether ideas are or are not alike, it is enough if their *order* is alike. Here an equation can be established, and certainty found. Whether planets are moved by inhabiting spirits, or are whirled in a sling by some distant spirit, whether they are ellipsoid solids, or unextended centres of force, whether they are in any respect like or unlike our conception of them, is of little consequence to us, so long as we have ascertained the *order* of the phenomena, the law of their motions. So absolute is this abstraction of differences, that we may admit the real law to be different from the law we conceive, provided only that there is equivalence, *i.e.*, that they numerically correspond, so as to admit of calculations which agree with observation. Hence all that Science needs is correct formula of the *order* of phenomena: these are truths. How thes formulas are reached we have not to consider here; whe reached, they are placed by the Test beyond the conflict with doubt.

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* MANSEL: *Prolegomena Logica*, p. 241.

† KANT: *Logik.* Einleitung, vii.

§ 38. It thus appears that the question which has been debated since the beginning of Philosophy may now receive a decisive answer. This was impossible hitherto, because of the terms in which the question was put. We must no longer seek Truth in the conformity of ideas with objects (which is impossible), nor in the agreement of ideas with ideas (which is a purely subjective condition, carrying no objective validity); we must seek it in the equation of the internal and external orders, abstracting all differences. And the proof of this equation is the corroboration of calculation. When we can employ a formula with absolute precision, using it as if it were identical with the order of things, and applying it to events which are to come, we are certain that this formula expresses equivalence and is a truth.

Subjective agreement is as perfect in hallucination as in perception, which M. Taine happily calls 'une hallucination vraie.'* How, then, are we ever to be certain that our formulas are true—that the order of our ideas is in correspondence with the order of things? What is the bridge over the gulf between the subject and object? Let us pause awhile to consider.

I am seated in my study, and, on raising my head from a book, see a man slowly pass out of the room, cross the lawn, and seat himself on the garden wall. This has been the order of my sensations. Considered subjectively, the truth is indisputable. It is an identical proposition to say, that I saw what I saw, felt what I felt. But can I with equal certainty say, that what I saw had a corresponding reality, that the objective order was the same as the subjective? Not so. As yet no proof exists. I may have had an hallucination. To prove that my subjective state had its correspondent objective, some corroboration is needed. My wife enters the room, and she also sees the man on the garden wall. This proves that I have not had an hallucination of vision; but it does not prove the reality of my inference. Her testimony is not final, because she may misinterpret the appearances, as I misinterpret them. A dog comes in, and, seeing the figure on the wall, begins barking furiously. This shows, that although wife and dog may misinterpret the appearances, there is *some* external object. If I could touch it, the corroboration of one sense by another would be valuable; I can, at any rate, speak to it. I do so; and, asking the man what he does there, he replies by some insulting jest. My conviction becomes deepened with each corroborating fact; and when, finally, I order my servant to fetch a policeman, and the policeman comes, and carries off the struggling intruder, the impossibility of my thinking that the vision had not an objective reality is absolute. When all the senses converge, when all the evidences corroborate, we are forced to believe in the objective reality, unless we declare all existence to be a dream.

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* TAINE: *Les Philosophes Français du XIXième siècle.* 1857.

§ 39. Inasmuch as all knowledge is the expression of Experience, the truth of any proposition respecting things can only be tested by some term of Experience. The elements of Inference must be severally reduced to Feeling, or must be established by Reason. If I cannot reduce an Inference to Feeling, I can approach it through the Feeling of others; and their corroboration is the stronger in proportion as it concerns the objective nature of the thing inferred. I want no evidence of the fact that sugar is sweet to me; but if everyone everywhere declares sugar to be sweet, Reason tells me there must be some objective something corresponding with this sensation; and when I find that this something, which exists in various fruits and various substances, has in all these the same atomic elements, I have got hold of an equation between the internal and external orders.

§ 40. Mr. Mill insists, that a necessity of Thought cannot be accepted as a necessity of Things. Perhaps not; perhaps it can. We are incompetent to decide. To decide it, would be to have absolute knowledge. Let me ask, why should not a necessity of Thought be sometimes the expression of an equivalent necessity of Things, since it is the product of Experience, which is determined by objective conditions? And even if we grant, that a subjective necessity can never carry with it an objective necessity, we must still say, This is what we are compelled to think, and this for us is Truth. Not that I 'erect the incurable limitation of the human conceptive faculty into laws of the outward universe.' Far from it. I simply erect them into 'laws of the conceptions we form of the universe;' and wherever we find these conceptions so far corresponding with external laws that they enable us to foresee results, and modify phenomena with certainty, we may declare the equivalence of the law and the conception. In such a case, the necessity of Thought is the expression of a necessity of Things. The laws of Number, Form, and Motion are necessities of things no less than of Thought, not perhaps existing objectively in the same forms as they exist subjectively, but having an equivalent order; and the proof is, that we *discover* them in Things, we do not put them there.

§ 41. And this leads me to remark on Mr. Mill's criticism that I 'set up acquired necessities of thought in the minds of one or two generations, as evidence of real necessities in the universe.' Undoubtedly, the laws of Number, Form, and Motion are *discoveries*, and whether these were early or late in being made, nowise affects their truth. Because men, until within the last twenty years, failed to see the equivalence of Heat and Motion, are we to conclude that this equivalence is not a necessity of things? Did not the order in Things proceed on this law (or on a corresponding law) during all the centuries in which men's conceptions of the order were very different? And now that men's conceptions have been readjusted, and they have detected the identity of Heat and Motion, has not the law become a necessity of Thought no less than of Things?

§ 42. What Mr. Mill justly condemns is the tendency to accept necessities of Thought as necessities of Things, *before they have been proved to be identical.* Against this tendency to assume that the order of ideas corresponds with the order in phenomena, and that what is logically valid will always be objectively valid, I have repeatedly protested in the course of this History; for, indeed, the whole body of Metaphysics is a result of that vicious tendency. Nevertheless, believing that Truth is possible—according to the definition I have given of it—and that a correspondence between the internal and external orders, though difficult of attainment, has a decisive Test, I have shown that a proposition is *absolutely true* only when its terms are equivalent, and that as this rests on the impossibility of our thinking a negative of the proposition, the varying degrees of *probability* will depend on the possibility of admitting a negative. This latter condition varies, of course, with the enlargements of knowledge; that negative which was easily thinkable at one epoch becoming unthinkable at another, and that which was unthinkable in the infancy of Science becoming not only thinkable but irresistible in its maturity. That men should be able to stand at the antipodes was formerly quite unthinkable; they were conceived under conditions which would necessitate their falling away into space. Science has not disproved *this* necessity, but has displaced the erroneous conception of the facts on which the proposition rested, and replaced it by another proposition. (Compare § 67.) If we now conclude that men will stand as well on the earth at the antipodes as they stand beside us, it is because we believe the conditions to be equivalent in both places, and, with equivalent conditions, necessarily arise identical results.

§ 43. No one supposes that it will guarantee a truth to say simply that we are compelled to believe it, without exhibiting our grounds of belief.* We must show the evidence to be irresistible, displaying our belief as a necessary conclusion, not a mere prejudice or tradition. In adducing our evidence, we have to establish a series of identical propositions; and it is precisely because we cannot do this in complex questions, that demonstration halts.

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* Kant properly objects, that the proposition 'what we cannot but think as true must be true' is no ground of proof, but only a confession of inability. 'Nun giebt es freilich wohl viele unerweisliche Erkenntnisse, allein das Gefühl der Ueber-

§ 44. We shall have to resume the subject of necessity in a future section, when discussing Necessary Truths in relation to the origin of Knowledge; for the present, therefore, the argument may close. What the preceding paragraphs have attempted to establish is, the possibility of Truth and its Test. This Test is absolute and relative: absolute, when the negative of a proposition is unthinkable because the proposition itself is an identical one; relative, when the negative, though not positively unthinkable, is nevertheless so opposed to existing knowledge as to be inadmissible, in which case the Test only reveals a high degree of probability. But in no case is the Test a means of enlarging knowledge; it only determines the degree of certainty. How knowledge is enlarged we have already seen in the exposition of Method.

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zeugung in Ansehung derselben ist ein Geständniss, aber nicht ein Beweisgrund davon, dass sie wahr sind.' *Unters. über die Deutlichkeit der Grundsätze.* Werke, i. 89, ed HARTENSTEIN, 1838. (This is the edition I usually refer to.)

IV. SOME INFIRMITIES OF THOUGHT.

§ 45. If History is Philosophy teaching by example, the examples of infirmity disclosed in the various systems which have gained acceptance should be carefully analysed. I do not propose to enumerate them here, nor to write a treatise on Error, but a few instructive examples may be specified.

And first of that tendency, already noticed, § 16, to commute the formal into material elements, to raise Relations out of their proper category, and transport them into the category of Things. This is the parent of Metaphysics. It is often called the tendency to 'realise abstractions.' Having combined certain elements of particular experiences into a single conception, we treat the concept as if it were an individual object.* The belief in Universals, which was accepted for centuries, is a well-known example. Professor Bain has truly remarked that 'the more we analyse or decompose concrete objects into the abstract qualities that make them up, the more difficult it is to remount to the concrete. Hence the most arduous attempt of all is to make actual nature rise up out of scientific or technical language—to conceive minerals from a book of mineralogy, and the parts of the human body from anatomical description.'† Why this difficulty? Because we have to undo what has been laboriously done—to immerse the abstractions in the concretes from which they were abstracted. And yet 'this process of resolving natural aggregates into their ultimate abstractions' is the great instrument of Philosophy. These abstracts represent the *constants*; whereas the concretes are the *variables*; and these variables, by their multiplicity and change, confuse the eye and distract the attention. But if, as our infirmity tends, we give objective independence to these abstracts, we distort the order of Things; in other words, we follow the movements of Thought, instead of following the movements of Things.

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* 'Toutes les fois que certains éléments d'une représentation sont distingués par une analyse, ou groupés systématiquement dans une synthèse, un tout se forme et se pose ; rien de mieux ; mais on ne s'arrête pas là ; on entend que les relations, sous condition desquelles cette opération s'est faite, disparaissent comme l'échafaudage inutile d'une édifice achevée, et que le tout qu'on a constitué demeure à part, debout, comme de lui-même, ou lui-même.'—Renouvier : *Essais de Critique Générale*, 1854, i. 9.

† Bain : *The Senses and the Intellect*, 2nd ed. 1864, p. 603.

Now in Science, when pursued on the Objective Method, we are constantly made aware of this tendency, and are forced to correct it by our failures in reconciling calculation with observation; but in Ontology such correction is impossible; accordingly it is in Metaphysics that we see the most frequent exhibitions of the infirmity.

§ 46. A good example of the tendency is the once popular but now gradually expiring doctrine of a Vital Principle.

Life is the connexus of the organic activities: a complex whole of various particular facts, abstracted from those particulars, and raised into objective reality. Each organ is composed of constituent tissues; each tissue has its constituent elements; each element, each tissue has its specific properties; the activity of each organ is the sum of these properties; the organism is the connexus of the whole. Life is thus a concept formed out of particulars. And because the functional relation of each organ to the whole, as of each tissue to each organ, is necessarily dependent on the established connexus, both terms of the relation (parts and whole) being inseparable, some physiologists have argued that the connexus is prior to the organs, the whole *generating* the parts, instead of being a *generalisation* from the parts.

Thus, forgetting the simple teachings of experience that Life is the connexus of various phenomena—an abstract from the phenomena—men have realised the abstraction, declared the *resultant* to be a necessary *antecedent*, and have constructed an Entity out of a Relation. They speak of a Vital Principle anterior to, and independent of, all the organic activities—

a Plastic Force, which mysteriously shapes the elements into tissues, the tissues into organs, the organs into an organism, and which, while thus building up the parts, endows them with its own special property—vitality. 'In the absence of this Principle,' they argue, 'all the activities which could be manifested within a tissue, or an organ, would be chemical and physical, not vital. The presence, therefore, of the Principle is presupposed in every atom of the vital organism; and this presence is not a resultant, but a cause.'

§ 47. Erroneous as this hypothesis seems to most biologists at the present day, it has been strenuously supported, and even still finds eminent supporters. The main source of its persistence lies in the infirmity we are now considering. Because vital phenomena are only observed under a *special* conjunction of conditions, in which the forces (that are elsewhere observed acting in different directions) are seen to have a specific direction impressed on them, we form an abstract of this special conjunction, and then easily fall into the error of realising our abstraction, giving it objective independence. But let us remount to the source of our abstraction. Let us immerse the abstract once more in the concretes from which it was drawn. Let us follow the movements of phenomena, and the illusion will vanish.

A strip of muscle detached from the organism will manifest all its vital properties, so long as its specific constitution as muscle remains, so long as it resists disintegration; it will absorb oxygen, exhale carbonic acid, and contract under appropriate stimulus. A gland removed from the body continues to be a small laboratory of chemical change, secreting as it secreted in the organism. A nerve removed from the body continues to manifest its specific property of Neurility, and will cause a muscle to contract if stimulated; nay, a nerve-centre removed from its connection with the rest of the body will continue to manifest its specific Sensibility; a decapitated bee will sting with its headless body, or bite with its bodiless head.

These phenomena prove that what each part does *in* the organism, each part does *out* of the organism. In other words, the Life of the animal is the sum of the particular vital activities;* not a power anterior to, and independent of, these activities. What is Life, if it is not the sum of vital phenomena? And if it is the sum, it cannot be independent of the integers of which it is the sum. The abstract is of course different from any one of its concretes. The organism as a whole—a combination of activities—presents phenomena which cannot be presented by the parts separately. The animal which has its muscles, glands, nerves, and nerve-centres, all harmoniously working together in one body, in one connexus, is capable of manifesting complex phenomena which could not be manifested by any of its separated organs; and the only question that remains is, whether there may not be a Vital Principle which unites these parts into one harmonious whole? Let the question be distinctly stated: Do we mean by Life the *source* of all vital phenomena, or is it simply a personified expression of the phenomena? If the former, then we mean that anterior to all vital phenomena there is a Principle, or Entity, which is in no wise dependent on these phenomena; and on this Principle all phenomena depend, as effects depend, upon their causes.

§ 48. Before considering this aspect of the old doctrine, there is one objection which must be anticipated. Seeing each part of the organism capable of manifesting vitality, the vitalists may claim that fact as peremptory evidence of the truth of their doctrine. 'The parts are alive;' they argue; 'but how alive? They have been *endowed* with vitality by the Principle which forms the organism; not holding it from any virtue in themselves, but receiving it from the source of all organic activity. Indeed, the conclusive proof of the existence of a Vital Principle is the fact that every atom of the organism is interfused with life.'

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* 'La force vitale peut être conçue comme une formule laconique destinée à exprimer en un seul mot les caractères propres à la matière organisée.'—BÉCLARD: *Physiologie*, p. 13. 'La vida de la materia es una *funcion*: depende de sus elementos y cada uno de sus elementos depende de los demás y del todo que constituyen. . . . El organismo entero es una funcion de funciones orgánicas, un conjunto que depende de sus partes, no pudiendo perder las todas, sin desaparecer como tal conjunto.'—NIETO SERRANO: *Bosquejo de la Ciencia Viviente*, p. 337.

I will meet this argument by the simple question: Is the Vital Principle identical with, and coextensive with, the Life manifested by the whole organism, or is it simply the Life manifested by each part? When we speak of a Vital Principle, do we mean the Life of the animal, and is that the same thing as the Life of an isolated muscle, gland, or nerve? Obviously not. In the one we group together various phenomena of sensibility, contractility, nutrition, reproduction, development, and decay. In the other we group together only certain special phenomena. The muscle will contract, will absorb oxygen and exhale carbonic acid; but it will not nourish itself, it will not grow, it will not reproduce other muscles, it will not feel, nor think. If we admit that there is a certain community in all parts of the organism, a community which expresses a fundamental identity, the parts being differentiated from one common mass, we must nevertheless admit the great diversity in the various parts. The organism is the synthesis of these parts, and Life is the synthesis of their properties.

To make this position clearer, let us analyse our knowledge of a locomotive. We find that the fire will heat water out of the machine as in it; the water, when raised to a temperature of 212° F., will pass off into steam; the expansion of this steam will force a piston; the crank will turn a wheel; the wheel will roll a carriage. The skilful adjustment of these various parts results in a whole which we name a locomotive. But no one supposes that the phenomena presented by the locomotive could be presented by any one of its parts. Still less does any one suppose that the phenomena are due to a Locomotive Principle, independent of the parts, which created and adjusted the parts. The engine-maker who adjusted the parts did not give them their properties; he found them, and used them.

Now, the only point in which this parallelism is incomplete, is in the community which runs through all the parts of the organism, and is not found in all parts of the machine. As I said before, this arises from the organism being constituted by differentiations of a substance originally homogeneous; whereas the machine is constructed of materials originally heterogeneous. The one was evolved; the other made. If, therefore, the Vital Principle be that which is common to all parts, we shall have to simplify our conception of Life, and reduce it to the properties of a blastema. Eliminating many of the great phenomena of organic activity, we are left with a structureless substance having the properties of Assimilation and Disintegration, from which Development, Reproduction, and Death result. Nor will even this simplification much assist the doctrine of a Vital Principle. Life is only known in dependence on substance; its activity is accelerated or retarded according to the conditions in which the chemical changes of the substance are facilitated or impeded, and it vanishes with the disintegration of the substance. What, therefore, remains, but to conclude that Vitality is the abstract designation of certain *special* properties manifested by matter under certain *special* conditions? Thus conceived, the ascending complexity of vital phenomena with an ascending complexity of organic structure, in harmony with certain special conditions becomes intelligible, and Vitality distinguishes the simplest living monad no less than the most complex animal organism. Community is thus reconciled with diversity.

§ 49. Metaphysical ghosts cannot be killed, because they cannot be touched; but they may be dispelled by dispelling the twilight in which shadows and solidities are easily confounded. The Vital Principle is an entity of this ghostly kind; and although the daylight has dissipated it, and positive Biology is no longer vexed with its visitations, it nevertheless reappears in another shape in the shadowy region of mystery which surrounds biological and all other questions. I indicated this region of mystery when I said that the organism differed from all other mechanisms in being evolved from a homogeneous substance, and not made out of heterogeneous substances. How comes this possibility of evolution? Whence the adjustment of part to part, and function to function? If the machine requires a mechanist to dispose and adjust the parts, does not the organism require its mechanist or Plastic Principle?

In presence of this question the metaphysiologist, although he may have given up his belief in an Entity, a Life independent of living substances, has ready recourse to another form of the same belief, and substitutes for the Vital Principle the conception of a Plan or *Scheme*, according to which the physical forces are coerced into an organic unity. The same conception has been applied to the Cosmos. It may be here considered solely in reference to the organism; though students will have no difficulty in extending the argument.

§ 50. At the outset note a false analogy, arising from a misconception of Evolution. We see an architect arranging a plan for a house, and a builder arranging the materials in accordance with this plan. Finding in an organism a certain adjustment of parts, which may be reduced to a plan, we are easily led to conceive that this plan was made before the parts, and that the adjustment was determined by the plan. This is what logicians call ὕστερον πρότερον, and ordinary men 'putting the cart before the horse;' the resultant is transformed into the cause.

We not only see that the architect's plan determined the arrangement of materials in the house, but we see why it must have done so, because the materials have no spontaneous tendency to group themselves into houses; that not being a recognised property of bricks, mortar, wood, and glass. But what we know of organic materials is that they *have* this spontaneous tendency to arrange themselves in definite forms; precisely as we see chemical substances arranging themselves in definite forms, without the intervention of any extra-chemical agency.

Observe: either the Plan is independent of the materials, in which case it is an extra-biological agency; or it is the generalised concept of the indwelling tendencies of matter, when under definite conditions. In the one case the analogy of the architectural Plan is correct; but this destroys the idea of *evolution*, and substitutes that of *construction*. In the other case the analogy is seen to be founded on a misconception of organic facts; the parts with their adjustments *evolve a plan*, and are not *constructed after a plan*. From an observed *nexus* men rashly infer a *nisus*, from an actual conjunction a previous intention. If this conception of a Plan be admitted in Biology, it must equally be admitted in Chemistry, Physics, and Astronomy. Matter and Force not being mysterious enough, we must add a new mystery of architectural Plan, shaping Matter and directing Force. There is, however, this dilemma: Is the Plan in itself a shaping Power? It is then only another name for the Universal Cause. Is it without specific power? It is then an impotent overseer.

§ 51. According to the first answer, the Plan is identified with God. But this introduction of God, besides its pantheistic issues, is an evasion of the real question. We did not ask whether God fashions all things, organisms as well as worlds; but whether each organism and each chemical species has over and above its constituent elements and properties a shaping Idea, an independent Plan, which gives specific direction to the constituent elements and properties? This is the question. There are two answers: 1st, *the teleological*. There must be such a Plan, because our examination of an organism discloses its resemblance to mechanisms which we know to have been constructed on a Plan, and we conclude that each adjustment was intended to effect its purpose. 2nd, *the psychological*. The conception of a Plan, when it does not arise from a false analogy (§ 50), is a generalised expression of the observed facts of organic independence: the facts of a nexus. Science finding it indispensable to co-ordinate all the facts in a general concept, such as a Plan, men are led by an infirmity of thought to realise the concept; and having first used it only as a convenient expression, they grow into a belief of this nexus being *also* a nisus.

§ 52. This argument will perhaps be met by the distinction of Potential and Actual, which has played so prominent a part in Metaphysics, and which is itself one of the products of the infirmity now under examination. It will be said 'the Plan pre-exists, not as an actual objective fact, but as a Possibility, a Potentiality.'

Let us first see what experience tells us of the development of an organism. The ovum and the seed are starting points, from which an animal and a plant may, *under requisite conditions*, be developed. This is the expression of our experience. But now observe the jugglery of thought! One of the elements of the whole result, absolutely necessary to the result (indicated by italics in our statement), is quietly eliminated, and never afterwards restored. By a regressive movement of Thought we carry the developed organism back again to its starting-point, (*minus* the conditions of development, therefore,) and form a concept of the ovum and seed as *potentially* containing the animal and the plant.

At first this is mental shorthand, useful as an artifice. Unhappily it soon loses its position as an artifice, and passes into a fallacy. The elements which have been omitted are never restored (compare § 54). If we restore them, if we write out the full meaning of our shorthand notes, what do we read? Assuredly not that the lineaments of the animal are actually present in the ovum. In the ovum they do not exist. When you say that they exist *potentially*, what is the translation of your phrase? It is, that under a given history—under a successive series of particular conditions, a special result will ensue. If we know the conditions and their succession, we may foretell the result. The law of causation determines it. Any variation in any one of the conditions will be followed by a corresponding variation in the result. All this history of development is omitted in the shorthand of Thought. The result is foreseen, because, the conditions being taken for granted, their action is anticipated.

But Nature must not be thus distorted and compressed. If our feeble faculties make artifices necessary, we must not forget that they are artifices; we must restore, in a final elaboration, what, in a preliminary elaboration, we rejected. The facts of Nature remain, whether we reject them or accept them. Potential existence is ideal, not real. If you adjust your rifle accurately, the animal aimed at may be *potentially* dead, but *is* alive; and the merest trifle, the swerving of your hand, or the dampness of your powder, puts an end to the potential existence. A fact is not a fact until it is accomplished. Nothing exists before it exists. This truism is disregarded by those who talk of potential existence. The conception of a plan preceding the execution of a work, does not prove that the plan pre-exists *in re*. The realised plan does not begin to exist, out of Thought, until the work is begun, and is completed with the completion of the work.

§ 52. Potential existence is subjective only. My forecasts of the results of a history may be true or false. I foresee the result by grouping together the facts which *will be*, with the facts which *are*, and I make one concept of them. In doing so I annihilate history. I transcend the conditions of Time, and the necessities of Causality, and conceive as simultaneously completed, that which in Nature must be successive and graduated. So far well. But if I desire to ascertain the actual facts, I must follow the course of Nature, and restore that history which has been left out of sight. Following the development of the ovum, historically, I observe that not only are certain conditions indispensable, but that every variation in the requisite conditions produces a variation in the result—modifies the structure of the animal, arrests or accelerates its development. If I varnish the shell of an egg, I prevent the embryo from developing into a bird. If I varnish one part of the shell, I so alter the requisite conditions that the result is a bird incapable of living, or curiously malformed. In altering the history I have changed the historical result. What then has the Plan effected? The Plan has not come into existence. If the conjunction has thus altered with the altered conditions, how can it be the fulfilment of a Plan irrespective of conditions? and a Plan which is strictly dependent on conditions is not a nisus but a nexus. The inevitable conclusion is, that Plan neither shapes the Organism nor determines the conditions through which the development takes place. In mathematical phrase, the Plan is the *function* of Development and Developing Conditions, and is variable with every variation of either.*

The fallacy that a concept has independent existence prior to the particulars out of which it is formed, or that a Plan exists as a potential before it exists as an actual, will frequently be met with in the History of Philosophy. Indeed, Aristotle's distinction of *δυνάμις* and *ἐνεργεία* (see vol. i. p. 313) was for centuries regarded as a luminous guide.

§ 53. An infirmity closely connected with the foregoing, is forgetfulness of the necessity we are under of dislocating the order of Nature, by Analysis and Abstraction; which artifice, since it leads to discovery, may be copiously used on condition of our remembering that it is an artifice, and that the order we have dislocated must be finally restored, if the order in Thought is to correspond with the order in Things.

Science is distinguished from Common Knowledge by its wider reach and more systematic structure, and also by its conscious employment of artifices which our infirmity renders indispensable, and which the unscientific mind employs unconsciously. Abstraction is one of the necessary artifices of research; and the man of science is conscious of what he is doing when he abstracts certain phenomena from the mass presented to him, and proceeds to deal with those abstractions as if they were the whole reality. Ordinary men do the same, but are unconscious of doing it.

NIETO SERRANO is worth citing on this question of potentiality: 'Es, pues, la fuerza potencial una fuerza que no es tal fuerza, pero que puede serlo; es la posibilidad sobrepuesta por la inteligencia á todo orden determinado. Mas la posibilidad no es absoluta, no es una indiferencia completa respecto del porvenir: esta indiferencia se halla limitada por los hechos, por las fuerzas actuales, por las que aparecen en la totalidad presente, como presentes ó como pasadas, y semejante limitacion constituye una probabilidad, que determina de algun modo la potencia.' *Bosquejo de la Ciencia Viviente*, p. 269.

Why must we make this preliminary abstraction—why deviate thus from the actual facts, in order to understand the facts we falsify? The answer is simple. Unless some such simplification be made, all search will be hopelessly baffled by the complexity of phenomena. The parrots of Bacon chatter about Observation; but Observation of cases, however patient and prolonged, will never suffice to disclose the Laws which are enveloped in the cases, and which form the real aim of Science. And what are Laws? They are the *constants* in phenomena, and can only be separated from the *perturbations*, due to other Laws, by a process of abstraction which sets aside all the variable accidents and individual peculiarities accompanying and determining each special case. Let us have Observation, by all means; but of what? Of ore and dross together? or of ore and dross separated? The constants found in every case must be separated from the variables found in varying cases. The mineralogist separates the ore from the dross; and the philosopher separates the constants from the variables. Even the Laws of Motion and Gravitation, universal as they are, could never have been discovered by observation of cases of motion and gravity; a preliminary abstraction eliminated all consideration of the variable resistances. The Laws of chemical affinity could never have been disclosed to Observation, except by a preliminary Analysis, which tore one element away from another, and studied each separately.

Every one knows, that unless Kepler and Newton had boldly disregarded all consideration of planetary perturbations, which were nevertheless essential facts in planetary movements, they would have been unable to detect the planetary Laws. But this preliminary falsification was rectified by their successors, who deduced the perturbations from secondary gravitations. It is this twofold process which I propose to erect into a logical canon applicable in all inductive inquiry,* the Canon of Restitution:—

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* Compare AUGUSTE COMTE: *Synthèse Subjective*, p. 604. Some time after this Canon with its illustrations had appeared in the *Fortnightly Review*, I found this

§ 54. Every investigation requires for its completion that Analysis be succeeded by Synthesis, *i.e.*, the preliminary abstractions be succeeded by a restoration of the rejected elements, so that the synthesis be made to correspond with reality.

In establishing the Laws of Mechanics philosophers falsify the facts to the extent of assuming that the lines of direction are undisturbed, and that the materials are perfect. In reality, this is never so; and the practical mechanic has to rectify the rational Law by the restitution of the discarded elements. His action is synthetical, and his calculations must be so likewise. At peril of ignoble failure, he has to ascertain what are the actual lines of direction, as determined by the rational Law *and* the perturbing resistances; he has also to ascertain to what extent the materials are uniform.

§ 55. Two illustrations will suffice to exhibit the neglect of this canon. The undulatory theory, of light and heat, is justly regarded among the triumphs of modern science. It starts from oscillating atoms having no dimensions—mere mathematical points. This is a bold disregard of concrete observation; points without form or size are abstractions so entirely removed from reality as to be unimaginable. Nevertheless, Analysis occupied solely with oscillations, and discarding the oscillating atoms, as if they were not elements of the synthesis, has furnished Laws of vibration that explain many of the most remarkable phenomena of light and heat, *e.g.*, polarization, refraction, interference. This success

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passage in Comte's *Politique Positive*, vol. i. p. 426 : 'Les événements ne pouvant s'étudier que dans des êtres, il faut écarter les circonstances propres à chaque cas pour y saisir la loi commune. C'est ainsi, par exemple, que nous ignorerions encore les lois dynamiques de la pesanteur si nous n'avions pas fait d'abord abstraction de la résistance et de l'agitation des milieux. Même, envers les moindres phénomènes nous sommes donc obligés de décomposer pour abstraire avant de pouvoir obtenir cette réduction de la variété à la constance que poursuivent toujours nos saines méditations. Or ces simplifications préalables sans lesquelles la vraie science n'existerait jamais exigent partout des restitutions correspondantes quand il s'agit de prévisions réelles.' Although I had not marked the passage previously, nor realised its full significance, it is highly probable that I was unconsciously guided by it in the construction of the canon.

justifies the falsification. But inasmuch as the theory fails to account for other important phenomena, the Canon of Restitution suggests that the failure may lie in this falsification, and that the outlying elements may furnish a solution of the unexplained difficulties. If the atoms exist at all, it is unthinkable that they should not have certain geometric properties, and these geometric properties entail dynamic properties. If they have Form, they must have a corresponding Movement. As it is impossible to conceive them unextended, as they must have size and form, they must have the motions deducible therefrom. But these facts have hitherto been disregarded. Let them be restored, and let mathematical analysis be directed to the problem under this new aspect. The movement of the wave, *i.e.*, the movement of translation, has been sufficiently analysed; now let the movement of the atom, *i.e.*, the movement of rotation, according to Poinsot's immortal principles, be investigated. In the mechanics of translation the form of a body is indifferent, but in the mechanics of rotation the form is everything. If the investigation in this direction failed to clear up the present difficulties, it would at least have this result, that it would prove the rotation of the atoms to be legitimately disregarded in the theory of Light and Heat, because not sensible factors in the result.

§ 56. The second illustration of our Canon shall be the question of the Origin of Species.

Are Species variable or invariable? This question resembles that of planetary perturbation. The abstract Law of Reproduction—that Like produces Like—is unassailable as a Rational Law; and it points to the fixity of Species as a fundamental truth. But the Law is Rational, not Natural. It abstracts the Organism from the Medium—one factor from its co-efficient—and thus violates the synthesis of Nature, which never yet presented an Organism independent of the Medium in which it lived. And there is matter for meditation in the fact, that only in modern Biology has the necessary reaction of the Medium been steadily conceived as one of the necessary elements of every biological problem; formerly the Organism was always conceived as if it were no less independent really than it was ideally.

The restitution of the discarded elements, namely, the reaction of the Medium and the Struggle for Existence, which act as perturbations of the biological Law, bring forward this problem: What is the sweep of the perturbations? Can these perturbations be assigned to some secondary biological Law (the reaction of the Medium), and can they, by accumulation, determine a change in the primary Law?

At present we have two groups of thinkers, each relying on a group of indisputable facts: one proves the constancy of forms, and another proves the variability of forms. The complete theory must include and reconcile both groups. For this it is necessary that a rational Biology should elaborate a theory of the Organism, and a theory of the Medium; then the Law of Reproduction being completed by the restitution of the Perturbations, also reduced to Law, we shall have a possible synthesis explaining all the cases.

§ 57. The Canon just exhibited is needful as a corrector of our natural infirmity, which first makes the separation necessary, and then forgets that the restitution is no less so. The anthropomorphic infirmity, which suffuses Objects with our Feelings, making Cause inseparably associated with Effort, and Attraction with Desire, is too well known to need more than a passing mention here. It is a fertile source of metaphysical speculation.

Another is the strange assumption, that because knowledge is the bringing of the Unknown under the categories of the Known (for only thus can the Unknown be thinkable at all), therefore we can discover the further relations of this Unknown. For instance, Kant, in the preface to the second edition of the *Kritik*, says that Will, the phenomenon, is not free, because it is subject to the laws of phenomena; but Will, the thing in itself, may be thought as free, because no longer subject to the laws of phenomena. Now he admits that things in themselves are beyond knowledge. If we cannot know the *Dinge an sich*, how can we predicate anything of them? In his *Prolegomena* he has this illustration of analogy: 'I can never do anything to another without thereby giving him the right to do the same under similar conditions; just as no body can act on another without thereby causing an equal reaction on itself. Here Right and Force are two entirely different things, but there is a complete resemblance in their relations. By means of such analysis I can consequently attain conceptions of the relations of things, which things are absolutely unknown to me.'* If the things were absolutely unknown, how could the relations, upon which the analogy is founded, be known?

The fact is, men are constantly affirming certain existences to be Unknown and Unknowable, yet in the same breath affirming relations of them which presuppose knowledge. They will admit that Matter, as *Ding an sich*, is absolutely and necessarily extruded from the sphere of possible knowledge; yet they will proceed to argue that it must, or must not, be constituted of discrete atoms, that these atoms are, or are not, in contact. They will admit that it is impossible for us to know God, otherwise than through Revelation. Yet they have not the slightest misgiving in affirming many things of God's nature, interpreting his intentions, without any warrant in Revelation. Thus implying that they know what they have declared unknowable.

This list of infirmities might be extended, but it may close here. Others will meet us in the History.

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* KANT: *Prolegomena zu jeder künftigen Metaphysik*, § 58. Werke, iii. 285.

V. NECESSARY TRUTHS.

§ 58. The great question which has been debated in the schools respecting the Origin and Limits of Knowledge, has of late years resolved itself very much into a debate respecting the nature of Necessary Truths. The philosophers who hold that, over and above the results of Experience, in its widest acceptation, we have truths of a higher authority and a larger reach, springing from a nobler source, invoke, as decisive evidence of their opinion, the existence of Necessary Truths, which cannot (they affirm) be the results of Experience.

This position rests upon a radical misconception of Experience, and a psychological misconception of the nature of Necessary Truths; both of these mistakes it will be important to clear away. We may admit at the outset, that the mind is in possession of many ideas which could never have been directly given in Experience, if Experience be restricted to Sense. The restriction, however, is unwarranted. Ratiocination is as much an organic function as Sensation. Just as the base line gives the indirect, yet certain, measure of the inaccessible line of the triangle, so from the data of Experience may we measure consequences which are not directly accessible. But the analogy must not be perverted: the base line only gives us the directly inaccessible line, it does not give other lines; the data of Experience only give the directly inaccessible consequences of the data, not the consequences of *other* data; and it is owing to an imperfect appreciation of such limits in the deduction of the unknown from the known, that the doctrine of Necessary Truths, independent of Experience, has attained currency.

§ 59. What is Experience? It is the sum of the actions of Objects on Consciousness; or—to word it differently—the sum of the modifications which arise from the relations of the Sensitive Organism and its environment. In this sum are included—1st, The direct affections of Consciousness in its relations to the outer world; 2nd, The results of those affections through the action of Consciousness in combining, classifying, and transforming the materials furnished by Sense. Thus Experience, in its widest acceptation, is the product of two factors: Sensation and Laws of Consciousness.

So far all thinkers are agreed. The point of separation is this: Are the Laws of Consciousness evolved out of the relations of the Sensitive Organism and its environment; or are they pre-existent, and independent of any such relations? When the empirical school declares its acceptance of the former alternative it seems to proclaim an absurdity—Experience being a product of Sensations and Laws, is said to produce the Laws of which it is the product. But this verbal contradiction is got rid of when we distinguish Experience from experiences. Every particular modification of Consciousness is a particular experience. Each modification prepares the way for successors, and influences them. The Laws are evolved through these successive modifications, and Experience is the general term expressing the sum of these modifications.

But are the Laws evolved? The Sensational School has greatly obscured this question by the unscientific conception of the mind as a *tabula rasa* upon which Things inscribe their characters—a mirror passively reflecting the images of objects. This presupposes that Consciousness is absolved from the universal law of action and reaction, presupposes that the Organism has no movements of its own; and thus Psychology is separated from its only true biological ground. The *à priori* School commits the opposite mistake of conceiving Consciousness as a pure spontaneity, undetermined by the conditions of the Organism and its environment; a spontaneity which brings Laws, not evolved from relations, and organised as results, but derived from a supra-mundane, supra-vital source.

§ 60. We cannot take a step unless we admit that Consciousness is an active reagent, even in its first stage of evolution. Sensibility is not passive, cannot be conceived otherwise than as an excitation. Nor is this all. Biology teaches that the Sensitive Organism inherits certain aptitudes, as it inherits the structure, of its progenitors; so that the individual may be said to resume the Experience of the race. Faculties grow up in the development of the race. Forms of Thought, which are essential parts of the mechanism of Experience, are evolved, just like the Forms of other vital processes. In fact, as Function is only the Form of activity of an Organ, it is obvious that if the Organ is evolved, the Function is evolved, and with it the Laws of its action.

The *à priori* School denies this, not indeed explicitly, but with energetic implication. It does not boldly affirm that Function can exist without an Organ; but it denies that Consciousness is a Function. Hence it has no difficulty in maintaining that the Mind of an infant is full-formed at birth, equipped with all its faculties, though without those materials of Thought which will afterwards be furnished in Experience. How can this be? The Aristotelian refuge of *potential existence* (§ 52) is ready for the escape of the metaphysician pursued by Fact. To us, who decline that refuge, the assertion that the Mind is full-formed at birth is as rational as the assertion that the infant is born a full-formed man, equipped with all his faculties of locomotion, speech, reproduction, &c. The infant may *become* a man, but *is* an infant, and his mind is undeveloped; if the spiritual experiences of the infant were suddenly arrested, does any one suppose that we should find in them those Fundamental Truths and Forms of Thought which Psychlogists declare to be the native dowry of the mind? * I do not know that any one frankly affirms this; but I know that the *à priori*

Compare the striking passage in MANSEL's *Metaphysics*, p. 45.

School implies it, in maintaining that we have within us a source of knowledge which is not evolved in Experience.

§. 61. Kant is the most potent philosopher of this school, and although in my criticism of the *Kritik* I have had to consider his position, I cannot pass it by here without challenge; referring the reader therefore to what is said, vol. ii., p. 460 and pp. 475 sq., I will here notice only such points as the argument needs.

Kant says, 'There are two branches of knowledge: Sensibility and Understanding—which possibly spring from a common but unknown root. Through the one objects are *given*, through the other they are *thought*.' * Except for the reservation in the word 'possibly,' this is unimpeachable; but the reservation was dictated by his exaggerated view of the part played by the Subject in the construction of knowledge. He made an entity out of a relation. He thought the subjective element could be separated from the objective; and, thus separated, it would reveal itself as independent of and antecedent to Experience, constituting indeed the very conditions of Experience. I have shown this to be a fallacy. 'The understanding,' he says, 'does not draw its laws (*à priori*) from Nature, but prescribes them to Nature—*schreibt sie dieser vor*.' †

§ 62. The error arises from a false point of view, which mistakes Anatomy for Morphology and Logic for Psychology. Accepting the human understanding in its developed forms, he presents us with these *constituent forms* as if they were *initial conditions*; the results which are developed through successive experiences are presented as the primary conditions of Experience: the generalizations are made antecedent to the particulars from which they are drawn. We are told that these Forms are implied in the particular experiences. Granted: if they were not implied they could not have been elicited. Logic is justified in disregarding the process of evolution, content with the result; for Logic has to exhibit the Forms of Thought, not their origin. In like manner Anatomy has to do with the organs of the body, not with their genesis, which belongs to another branch of the science, Morphology. Now the question of Experience is a question of origin; and Psychology reveals that Experience is the self-woven garment of Thought in which every thread is an experience. To assert that *à priori* principles or Forms of Thought render Experience possible, is to assert either that these Forms exist before Thought itself exists, or else it is to confound the general with the particulars. Let us see this in an analogy.

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* *Kritik*. Einleitung: sub finem.

† *Prolegomena zu jeder künftigen Metaphysik*, ii. § 36. Compare also his *Anthropologie*, i. § 9.

§ 63. The vertebrate type is by some *à priori* thinkers held to be the necessary Form which renders the vertebrate animal possible. Anatomically this is acceptable. But what says Morphology? Does it disclose the existence of a Type anterior to the existence of the animal? or does it not disclose the emergence of the typical Form in the successive phases of the animal's development? Obviously the idea of pre-existences is a figment, a mere ὕστερον πρότερον (§ 50).

Again: a frog breathes by means of lungs. The lungs once developed and brought into action become a necessary condition of possible breathing. Ever afterwards the frog's existence is determined by this condition. But if we take the frog in its early stages, we find it breathing by means of gills, the lungs not having yet come into play. At this period it is not a lung-breathing animal; the necessary condition is somewhat different. In the course of development the fore-legs begin to press upon the arteries which supply the gills, and the consequence of this pressure is the gradual disappearance of the gills. Meanwhile the lungs pass from their rudimentary inactive state into an active state, and the disappearing gills are replaced by the emerging lungs. It is thus also with the development of Mind: the necessary conditions which render experiences possible in the early stages are not the same in the later stages. Mind is a successive evolution from experiences, and its laws are the action of results. The Forms of Thought are developed just as the Forms of an Organism are developed. The infant Newton is no more the author of the *Principia*, than the egg is the game-cock.

Indeed, this notion of *à priori* Forms, connate if not innate, is a violation of the ground-principle of Biology, and consequently, as all but metaphysicians must admit, of Psychology. If there is one lesson taught us everywhere in Biology, it is that nothing which is definitive is primitive—no form characteristic of the developed state is to be found in the germinal state. Therefore, unless we maintain that Mind is, *ab initio*, adult, as to its powers if not as to its Knowledge,—that it does not develop but only appears,—we must admit that with Mind, as with Body, there is not preformation or pre-existence, but evolution and epigenesis.

§ 64. What is it prevents some men from accepting this alternative? It is that they discover in the adult mind principles which cannot, they affirm, be evolved from Experience. Necessity and universality point to an *à priori* source. Necessity is not given in any particular experience. Universality is not given in any number of experiences. Hence—(here lies the fallacy!—) they are not empirical.

We affirm that they belong to Experience, are products of Experience, and of Experience only; they are the results of that movement of Thought which passes from particulars to generals. I shall presently show that they are necessities of Thought under the limitations of Experience. Of course it is requisite to avoid the common confusions on this subject, and not restrict Experience to Sense, as many unwarrantably restrict it. Thus Dr. Thomas Brown repeats the false statement commonly accepted as an axiom, that 'Experience teaches us the past only, not the future.' Is this so? Is it not the fact, that although experiences are only past modifications of Consciousness, they have a forward projection, and hence Experience teaches—whether correctly or falsely—the future irresistibly? Expectation is surely a product of experiences. Association is experience. When a dog, having once experienced the pain produced by a stick falling swiftly on his ribs, again sees me about to strike him, is there anything over and above his modified consciousness (Experience) which causes him to foresee pain to himself in that preliminary? The metaphysician wants an occult something to give this simple case the requisite obscurity. 'It is not to experience alone,' he says, 'that we must have recourse for the origin of our belief that the future will resemble the past, but to some other principle which converts the simple facts of experience into a general expectation or confidence.'* This is easily said, but Brown is forced to add: 'This principle, since it cannot be derived from Experience itself, which relates only to the past, must be . . . an original principle of our nature.' A very typical example of metaphysical logic! If the 'original principle' mean something born with us, ready to receive our experiences as in a mould, I affirm this to be the ὕστερον πρότερον fallacy. If it mean no more than that our psychical nature is such as to group together phenomena experienced together, so that when once the stick has been coupled with pain, the two ideas are associated, then indeed there is no objection to the phrase, except its mysteriousness.†

§ 65. Having thus defined and explained what is the sense in which Experience is legitimately held, we may address ourselves to the question of Necessary Truths, and see whether they point to a source of knowledge which is superior to, or at least independent of, Experience.

It may be convenient to use the term empirical, as opposed to *à priori*, to designate what is contingent, as opposed to what is necessary. But Kant himself saw that the distinction is only verbal, and in the opening section of the *Kritik* says: 'We are wont to call many conclusions, which have their source in experience, *à priori*, simply because they are not drawn immediately from experience, but from a general rule, which was, nevertheless, drawn from experience. Thus we say of a man who undermined his house: He might have known *à priori* that the house would fall in, *i.e.*, he need not have waited for the experience of its actual fall. Yet purely *à priori*, this could not have been known, for he must have learnt through experience that bodies are heavy, and fall when their supports are removed.' Nevertheless, although Kant saw this he still believed in the existence of *à priori* principles, which are demonstrably not less empirical. What misled him was, I think, the confusion between contingent Knowledge and contingent Truth. He declared Experience to be empirical and contingent, because our experiences could never be necessary and universal; whereas universal and necessary Truths were *à priori*, because they could not be given in particulars, and hence were *anterior* to all Experience. That they might be *posterior* to (*i.e.*, evolved from) Experience, was an alternative he omitted to consider.

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* Brown: *Lectures on the Philosophy of the Mind*, vi.

† 'If we think in relations, and if relations have certain universal forms, it is manifest that such universal forms of relations will become universal forms of our consciousness. And if these further universal forms are thus explicable, it is superfluous, and therefore unphilosophical, to assign them an independent origin.' Spencer: *First Principles*, p. 229.

With these preliminary explanations, let us now examine how far the Necessary Truths are, or are not, capable of reduction to Experience.

§ 66. It appears to me, that all writers on this subject have failed to see a distinction which is so obvious when pointed out, that the neglect of it seems inexplicable: the distinction is between the (objective) fact and our (subjective) knowledge of the fact. We speak of sound sometimes meaning the undulation of the air without us, and sometimes meaning the sensation excited within us by that undulation pulsating on our tympanum. By a similar laxity, we speak of a Truth sometimes as the relations of an external fact, and sometimes as the conception we have formed of the fact. Now in the Truths classified as Contingent, the contingency is never applicable to the relations themselves, but solely to our conceptions of them. That 72 and 140 added together will make 212 is a truth which, objectively, has no contingency whatever; but there is a subjective contingency in this as in all other unverified propositions, namely, the contingency of our miscalculating—misconceiving the objective relations. That 'a body moving under certain conditions *as if* attracted by a force varying inversely as the square of the distance will describe an ellipse having the centre of attraction in one of the foci,' is a proposition which, *once demonstrated*, has no contingency, although we may easily misconceive the relations it expresses; and that 'the earth is a body acted on by such a force under such conditions,' is likewise a proposition which is contingent until verified, and is necessary when verified. Assuming that there is an external world, its order must be necessary, *i.e.*, the relations must be what they are; the contingency can only lie in the correctness or incorrectness of our appreciation of those relations. Hence, instead of confusedly speaking of Necessary and Contingent Truths, it will be less ambiguous to speak of Verified and Unverified Propositions. All truths are true, but all propositions do not correctly express the external relations, and the question arises, which propositions are to be accepted as correctly expressing the relations? Obviously those only which have been verified by the equivalence of the internal and the external order, or the reduction to A = A.

Several persons seated at a table are startled by shrill sounds, which they one and all infer to be the shrieks of a child in pain or terror. The fact that they hear the sounds is indisputable, and the expression of this fact is a truth as 'necessary,' as that 'two parallel lines cannot inclose space.' Nor is there any contingency in the fact, that these sounds are produced by pulsations of the air on their tympanum. Why is there none? Simply because experience has found that the sensation of Sound *is* produced in this way—the objective relations have been verified. There is, however, some contingency in the proposition,—'These sounds are caused by a child in terror or in pain;' not that there is the slightest contingency in the fact itself. On proceeding to the spot, the child is found to be struggling with an animal, and shrieking as it struggles. The truth of the proposition is now verified, and unless scepticism be extended so far as to doubt whether all the phenomena are not the pageantry of a dream, we may affirm that the proposition is a necessary truth.

It may surprise the reader to see an example of this kind cited as a necessary truth, but I have selected it for the very purpose of my argument, which is to prove that the question of contingency lies solely within the region of all unverified propositions. All verified propositions are necessary truths; all unverified propositions are contingent. This is a complete reversal of the position maintained by metaphysicians, for they affirm that necessary truths are precisely those propositions which cannot be verified (*i.e.*, exhibited in Experience), and that all propositions dependent on the verification of Experience are contingent.

§ 67. Let us now take another step. The advocates of Necessity, as an indication of a source of knowledge superior to Experience, are guilty of a confusion so misleading that I am surprised at neither friend nor foe having pointed it out. It is nothing less than *changing one of the terms of the proposition*, and then concluding as if the terms had remained unaltered. Thus the one argument incessantly brought forward is, that some Truths are such as are seen to be not only true, but *necessarily* true; whereas, there are other truths which, however true to-day, are contingent, because changes may occur to-morrow which will reverse them. It is further added, that no amount of experience, no number of examples, can establish necessity, but only the fact of generality, and a life-long experience of uniformity cannot exclude the possibility of a sudden reversal. All that Experience can show is, that a certain order has been uniformly observed; it cannot show that what has always been must always be.* Philosophers have accepted this reasoning as if it were irresistible; every one uses it without suspicion; but no sooner do we examine it closely than we find it rests on the unconscious substitution of one premiss for another. To say that 'what has occurred will occur again, will occur always,' is to say that 'under precisely similar conditions precisely similar results will issue.' A is A; and A is A for evermore. But to say that 'what has occurred may probably not occur again, will not occur always,' is to say that 'under *dis*similar conditions the results will not be similar.' This proposition is as absolutely true as the former; but who does not see that it is a different proposition? When we declare that the laws of Nature are not necessary truths, but only contingent truths, because the mind readily conceives the possibility of their reversal, readily imagines such a change in the external conditions as would arrest the earth's motion, and with it all the manifold phenomena now resulting from that motion, what is it that we have declared? It is that, the relations of phenomena being altered, our conceptions to be true must alter with them. It is that, instead of the proposition, 'Such *is* the order of Nature, and such it *will be so long as it is unaltered*,' we have silently substituted this proposition: 'Such is *now* the order of Nature, but *if at any time it should be altered*, it will be different.' The only necessity is that a thing is what it is; the only contingency is, that we may be mistaken as to *what* it is. The law of gravitation, or the elliptical orbits of the planets, may, or may not, be truths; but if they *are* truths, they are necessary truths.* To say that they are 'observed facts, nothing more,' is all that is required by Necessity; and when we add that there is no proof of the continuance of the observed order, we either deny that 'A is A,' or we silently change the proposition, and say 'if A becomes B, it will no longer be A;' for, if the conditions continue unchanged, the order must necessarily continue unchanged; if the conditions alter, the order necessarily alters with them.

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* 'Tous les exemples qui confirment une vérité générale, de quelque nombre qu'ils soient, ne suffisent pas pour établir la nécessité universelle de cette même vérité: car il ne suit pas que ce qui est arrivé arrivera toujours de même.' LEIBNITZ: *Nouveaux Essais*, preface.

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* As Condillac puts it: 'En effet, parce qu'on a vu qu'on raisonne mal lorsque, d'un cas particulier, on tire une conclusion générale qui renferme des cas tous différents, on s'est hâté de rejeter toutes les démonstrations, ou l'on conclut du particulier au général; et on n'a pas remarqué qu'il n'y a point de défaut dans une démonstration lorsque dans une conclusion générale on ne comprend que des cas parfaitement semblables à celui qui a été énoncé dans une proposition particulière . . . une propriété qui constitue une proportion arithmétique est donc une propriété qui les constitue toutes; autrement il faudrait supposer qu'il y a des proportions arithmétiques qui ne sont pas des proportions arithmétiques.' *Langue des Calculs*, p. 113.

§ 68. The answer to this will probably be, That certain truths have such a character as to render their negation inconceivable, *no* alteration being conceivable in relations so absolute: and it is these truths that involve Necessity and *à priori* inspiration. This leads me to the only distinction between the truths of the two orders, namely, that in those classified as Necessary, the relations are abstracted from all conditions, and considered simply in themselves; whereas in those classified as Contingent, the relations are mixed with the variable conditions; and it is in this variability that the contingency lies. When we say '2 × 2 = 4,' or 'the internal angles of a triangle are equal to two right angles,' we abstract the relations of Number and Form from all other conditions whatever, and our propositions are true, whether the objects counted and measured be hot or cold, large or small, heavy or light, red or blue. Inasmuch as the truths express the abstract relations only, no change in the other conditions can affect these relations; and truths must always remain undisturbed *until* a change take place in their terms. Alter the number 2, or the figure triangle, by an infinitesimal degree, and the truth is thereby altered. When we say that bodies expand by heat, the proposition is a concrete one, including the variable conditions, but although these variable conditions prevent our saying that 'all bodies will, under all conditions, be always and for evermore expanded by heat,' the case is not really distinguished from the former one, since both the Contingent and the Necessary Truth can only be altered by an alteration in the terms. If a body which does not expand by heat (there are such) be brought forward as impugning the truth of our proposition, we at once recognise that this body is under different conditions from those which our proposition included. This is the introduction of a new truth, not a falsification of the old. Our error, if we erred, was in too hastily assuming that all bodies were under the same conditions.

Hence the correct definition of a Contingent Truth is 'one which *generalises the conditions*;' while that of a Necessary Truth is 'one which is an *unconditional generalisation*.' The first affirms that whatever is seen to be true, under present conditions, will be true so long as these conditions remain unaltered. The second affirms that whatever is true now, being a truth irrespective of conditions, cannot suffer any change from interfering conditions, and must therefore be universally true.

'The belief in the uniformity of nature is not a necessary truth, however constantly guaranteed by our actual experience. We are not compelled to believe that because A is ascertained to be the cause of B at a particular time, whatever may be meant by that relation, A must therefore inevitably be the cause of B on all future occasions.'* This will command the assent of every one who fails to perceive the silent change in the terms of the proposition. Instead of saying 'on all *like* occasions,' which would give necessity to the proposition, Mr. Mansel renders it contingent by saying, 'on all future occasions,' and the contingency lies in this, that some of the future occasions may be *un*like, in which cases a new proposition replaces the old. 'That fire will ignite paper on all occasions when the two may be brought together,' is what no one but a child or a savage with limited experience would assert; but that fire will always ignite paper on all future occasions which present conditions precisely similar to those that have once caused the ignition, is a truth having the character of necessity and universality which belongs to all identical propositions, and to those only.

§ 69. It will now be an easier task to criticise the arguments which profess to show that necessity and universality are irresistible marks of an origin superior to Experience. If what has already been said has found acceptance with the reader, he will recognise that every proposition being necessarily true, if it is true at all, the only question that can arise is, *Is* the proposition true? The only answer that can decide this, is one which reduces it to an identical proposition; and as this reduction is the process of Verification, and all Verification is through Experience, the conclusion inevitably reached is one directly counter to the *à priori* hypothesis.

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* MANSEL: *Metaphysics*, 267.

Two positions require to be established. First, that we gain our conceptions of Mathematical, no less than Physical, relations through Experience. Secondly, that in those conceptions so gained are involved their characters of universality and necessity.

§ 70. The argument could not indeed be conducted if we allowed Experience to be restricted to Sensation only, as the metaphysicians unwarrantably restrict it. Dr. Whewell finds no difficulty in showing that propositions 'obtained by mere observation of actual facts' cannot be necessarily true; for *no* proposition whatever can be thus obtained. His definition of Experience is, 'the impressions of sense and our consciousness of our thoughts.'* A far more accurate and philosophical thinker has defined its wider sense to be 'co-extensive with the whole of consciousness, including all of which the mind is conscious as agent or patient, all that it does from within, as well as all that it suffers from without;' and he truly adds, 'in this sense the laws of thought, as well as the phenomena of matter, in fact, all knowledge whatever, may be said to be derived from experience.'† The reader, not familiar with Kant's, or Mr. Mansel's speculations, may, perhaps, marvel that, after so comprehensive and just a definition of Experience, Mr. Mansel escapes the conclusion he has himself pointed out as irresistible, and falls back into the *à priori* argument, restricting Experience to 'its narrower and more common meaning, as limited to the results of sensation and perception only.' The explanation is, that Mr. Mansel adopts the Kantian conception of Forms of Thought, as conditions of Experience, a conception I have attempted to refute. (Vol. ii. pp. 475 sq.) One passage is all that need be given:—

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* WHEWELL: *Hist. of Scientific Ideas*, 1858, i. 131.

† MANSEL: *Prolegomena Logica*, 93.

'That experience,' says Mr. Mansel, 'is the chronological antecedent of all our knowledge, even of the most necessary truths, is now generally admitted. But a distinction is frequently drawn between truths or notions of which experience is the *source* and those of which it is only the *occasion*: . . . Every general concept is in one sense empirical; for every concept must be formed from an intuition, and every intuition is experienced. But there are some intuitions which, from our constitution and position in the world, we cannot help experiencing, and there are others which, according to circumstances, we may experience or not. The former will give rise to concepts which, without any great impropriety of language, may be called *native* or *à priori*; being such as *though not coeval with the mind itself* [an important admission] will certainly be formed in every man as he grows up, and such as it was pre-ordained that every man should have. The latter will give rise to concepts which, for a like reason, may be called *adventitious* or *à posteriori*; being such as may or may not be formed according to the special experience of this or that individual.'*

Inasmuch as I throughout interpret Experience according to the wider definition given by Mr. Mansel, and only differ from him in regarding the Forms of Thought as evolved through Experience, both in the race and the individual, whereas he (confounding, I think, Anatomy with Morphology) regards the Forms as conditions of experience, it will be needless to criticise his defence of Necessary Truths, having an *à priori* source, because the arguments I have urged against Kant are the arguments I should urge against Mr. Mansel.

§ 71. We may thus securely lay down the proposition that whatever can be learned must be learned by and through Experience; and we have then to examine whether we learn

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* *Op. cit.* p. 170.

Necessary Truths, or bring them with us into the world as the heritage of a higher life.

That two parallel lines can never meet is a Necessary Truth. That is to say, it necessarily follows from the definition of a straight line. To call it, however, an *à priori* truth, a truth independent of Experience, is a very imperfect analysis of the mind's operations. An attempt is made to prove that the idea could never have been gained through Experience because it commands universal assent, and because Experience itself could never give it necessity. Dr. Whewell's argument is, that let us follow two parallel lines out as far as we can, we are still unable to follow them to infinity; and, for all our experience can tell us to the contrary, these lines may possibly begin to approach immediately beyond the farthest point to which we have followed them, and so finally meet. Now, what ground have we for believing that this possibility is not the fact? In other words, how do we know the axiom to be absolutely true? Clearly *not* from Experience, says Dr. Whewell, following Kant.

We answer, Yes; clearly *from* Experience. For our experience of two parallel lines is precisely this: they do not enclose space. Dr. Whewell says that, for all our experience can tell us to the contrary, the lines may possibly begin to approach each other at some distant point; and he would correct this imperfect experience by *à priori* truth. The case is precisely the reverse. The tendency of the mind unquestionably is, to fancy that the two lines *will* meet at some point; it is enlarged experience which corrects this tendency. There are many analogies in nature to suggest the meeting of the two lines. It is only our reflective experience which can furnish us with the proof which Dr. Whewell refers to ideas independent of all Experience. What proof have we that two parallel lines cannot enclose space? Why, this: as soon as they *assume the property of enclosing space*, they *lose the property of parallelism*: they are no longer *straight* lines, but *bent* lines. In carrying out imaginatively the two parallel lines into infinity, we have a tendency to make them approach; we can only correct this by a recurrence to our experience of parallel lines; we must call up a distinct image of a parallel, and then we see that two such lines cannot enclose space.

The whole difficulty lies in the clearness or obscurity with which the mind makes present to itself past experience. 'Refrain from rendering your terms into ideas,' says Herbert Spencer, 'and you may reach any conclusion whatever. The whole is equal to its part, is a proposition that may be quite comfortably entertained so long as neither wholes nor parts are imagined.'* But no sooner do we make present to our minds the meaning of parallel lines, than in that very act we make present the impossibility of their meeting, and only as the idea of these lines becomes wavering, does the idea of their meeting become possible. A is no longer A, but B.

'Necessary truths,' says Dr. Whewell, 'are those in which we not only learn that the proposition *is* true, but see that it *must* be true; in which the negation is not only false, but impossible; in which we cannot, even by an effort of the imagination, or in a supposition, conceive the reverse of that which is asserted. That there are such truths cannot be doubted. We may take, for example, all relations of Number. Three and two make five. We cannot conceive it otherwise. We cannot, by any freak of thought, imagine three and two to make seven.'

That Dr. Whewell cannot, by any freak of thought, *now* imagine three and two to make seven, is very likely; but that he could *never* imagine this, is untrue. If he had been asked the question before he had learned to reckon, he would have imagined seven quite as easily as five: that is to say, he would *not* have known the relation of three and two. Children have no intuitions of numbers: they learn them as they learn other things. 'The apples and the marbles,' says Herschel, 'are put in requisition, and through the multitude of gingerbread-nuts their ideas acquire clearness, precision, and generality.' But though, from its simplicity, the calculation of three added to two is with a grown man an instantaneous act, yet if you ask him suddenly how many are twice 365, he cannot answer till he has reckoned. He might certainly, by a very easy 'freak of thought' (*i.e.*, by an erroneous calculation), imagine the sum-total to be 720; and although, when he repeats his calculation, he may discover the error, and declare 730 to be the sum-total, and say, 'It is a Necessary Truth that 365 added to 365 make 730,' we should not in the least dispute the necessity of the truth, but presume that he had arrived at it through experience, namely, through his knowledge of the relations of numbers, a knowledge which he remembers to have laboriously acquired when a boy at school.

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* *Principles of Psychology*, p. 49.

Dr. Whewell maintains that whereas Contingent Truths are seen to be true only by observation, and could not beforehand have been detected, Necessary Truths are 'seen to be true by a pure act of thought.' But he overlooks the fact, that even the simple truths of Number are not seen to be true *before* these relations have been exhibited; and if they are afterwards seen to be true by a pure act of thought, not less so are physical truths, once demonstrated, seen by a pure act of thought: neither can be seen beforehand. He declares that we cannot distinctly, although we may indistinctly, conceive the contrary of a Necessary Truth. Here again the oversight is the same. We cannot conceive the contrary of a truth *after* its necessity has been demonstrated, but we can distinctly conceive that $17+9=25$ *before* verification. So little does he apprehend the real case, that, referring to the mistakes of children and savages, he winds up with the serene remark, 'But I suppose no persons would, on such grounds, hold that these arithmetical truths are truths known only by experience.'

§ 72. Let us now turn to another argument. Kant says: 'Experience, no doubt, teaches us that this or that object is constituted in such and such a manner, but not that it could not possibly exist otherwise.'. . . . 'Empirical universality is only an arbitrary extension of the validity from that which may be predicated of a proposition valid in most cases to that which is asserted of a proposition which holds good in all. When, on the contrary, strict universality characterises a judgment, it necessarily indicates another peculiar source of knowledge, namely, a faculty of cognition *à priori*. Necessity and strict universality, therefore, are infallible tests for distinguishing pure from empirical knowledge, and are inseparably connected with each other.'* And elsewhere: 'If we thought to free ourselves from the labour of these investigations by saying, "Experience is constantly offering us examples of the relation of cause and effect in phenomena, and presents us with abundant opportunity of abstracting the conception of cause, and so at the same time of corroborating the objective validity of this conception"—we should in this case be overlooking the fact that the conception of cause cannot arise in this way at all; that on the contrary it must either have a basis in the Understanding, or be rejected as a mere chimera. For this conception demands that something (A) should be of such a nature that something else (B) should follow from it necessarily, and according to an absolutely universal law. We may certainly collect from phenomena a law, according to which this or that *usually* happens, but the element of necessity is not to be found in it. Hence it is evident, that to the synthesis of cause and effect belongs a dignity which is utterly wanting in any empirical synthesis.' †

§ 73. I answer that the very fact of our being compelled to judge of the unknown by the known—of our irresistibly anticipating the future to resemble the past—of our incapacity to believe that similar effects will not always follow similar causes—this fact is a proof that we have *no* ideas except such as are acquired through Experience, and that uniformity in Experience irresistibly determines our conceptions of the future. For if we had *à priori* ideas, these ideas being superior to Experience, would not always inevitably conform to it; they would bring *another* standard by which to judge—

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* KANT: *Kritik: Einleitung*, § ii. (MICKLEJOHN's translation, p. 3).

† *Op. cit. Transcendental Logik*, § 9 (Transl., p. 76).

a standard which was not that of the already known. Have we such a standard?

§ 74. The school of *à priori* philosophers maintain that we have, and that the standard is the Necessity and Universality which certain truths involve, and which cannot be given in Experience. But we have had abundant evidence that every truth is necessarily true, and the fallacy is, that of first using a proposition in one sense, and then concluding from it in a different sense. It is not Truth which is contingent, but conditions which are variable, and every truth becomes invariable so long as the conditions do not vary. The same argument proves universality. If a truth simply express an unconditional generalisation—if it express an abstract relation, of course it is true for ever without possibility of change. In both cases we say A is A, and will be A for ever. When Kant says Experience cannot be universal, but only general, and cannot therefore bestow universality, because it cannot itself be universal; he forgets that Experience itself is no more general than it is universal—it is particular, and *repeated.* Now, just as a finite line may be produced to infinity although the mind is finite, just as zero may be added to zero, and space to space, without end, by the simple process of repetition, so may a truth 'A is A,' though particular in itself, be transformed into an universal.

I close here the discussion of one of the most important topics in the whole range of Metaphysics, and with it these Prolegomena.

We are now to enter on the scene of History, and see men nobly striving to grapple with the Unknowable. The shadow of the unknown world everywhere mingles with the light of day. It is the dark background on which Phenomena are visible. It is always present, and always limiting—as shadows limit—the objects of our thought. Beyond the Known, stretches the vague Mystery, into which our eyes peer vainly yet persistently. The border-land is ill-defined, and it is so because the sphere of the Known is always becoming larger and larger. We always hope that the Unknown is not also the Unknowable.

Hence Speculation is tempted to enter the realm of shadows, and will not admit the obvious fact that, on quitting *terra firma*, it abuts on vacancy, and peoples an airy void with airy nothings. Psychology has to check this groping amid shadows, by showing that the coast-line of the Knowable is sharply defined from the ocean of the Unknowable by the necessary limitation of human faculties. Between us and that ocean there stretches a vast and fertile region, where golden harvests have already been reaped, and where still richer harvests await the sickle—truths already gathered for the regulation of our Life, and wider truths which will hereafter be gathered for its renovation.

HISTORY

OF

PHILOSOPHY.

THE HISTORY
OF
PHILOSOPHY.

FIRST EPOCH.

Philosophy separates itself from Theology, and attempts a rational explanation of cosmical phenomena.

CHAPTER I.

THE PHYSICISTS.

§ I. THALES.

IT is the distinguishing peculiarity of the Greeks, that they were the only people of the ancient world who were prompted to assume a scientific attitude in explaining the mysteries which surrounded them. They were the first and only people who disengaged speculation from theological guidance. This inestimable benefit will be the better appreciated, as men more and more learn, through the history of thought, how difficult it has been to keep the scientific attitude untrammelled, and how obstructive theological trammels have been to all effective progress. Europe has not yet entirely freed itself from these obstructions. In special inquiries, particularly in mathematical and physical inquiries, the influence of Theology is no longer felt; but in Biology, Psychology, and Sociology, it is still disastrously obstructive, warping men's views, alarming tender consciences, and distorting the positive inductions of Reason into agreement with the arbitrary deductions of Faith. We have long learned that the provinces of Religion and Knowledge are separate; we have long learned that the inductions of Astronomy and Physics relate to the order of phenomena and that our knowledge of this order is in no respect dependent on, or influenced by, our religious convictions; but we have not yet learned that this is true of all phenomena, of all science. The Greeks separated the two; and consequently it is to them that we owe the foundations of all our scientific knowledge.

Not only Mathematics and Logic do we owe to Greek invention, we also owe to it the first systematic conception of Political Science, of Education, and of the Natural Sciences. And the spirit in which these researches were pursued is even more remarkable than the results attained. As the primeval fire-mist, when condensed into a planet, gradually became a human habitation, so the vast aspirations of the Eastern mind when contracted into scientific research rapidly became available for human needs and human knowledge. Progress was soon visible everywhere. In Greece, owing to speculative activity being entirely untrammelled by Theology, Tradition, or Political Institutions, and left to run its own free course, progress was so rapid that the brief period of three centuries saw the full development of all the chief phases of philosophy, and the origination of all its fundamental solutions.

The contrast between the impetuous progress of Grecian thought and the stationariness of Eastern thought may be more thoroughly appreciated by comparison with the slowness of European progress. Thought has moved in Europe with a rapidity unknown in the East; but it has moved under fetters. It has had a greater momentum than the Grecian thought, but it has had also a greater friction to overcome. The brilliant period of its history has been the period in which the traditions of the Church have been most resolutely disregarded.

It is a suggestive fact that the dawn of scientific speculation in Greece should be coincident with a great religious movement in the East. The sixth century before Christ was not only the epoch when cosmical phenomena were extricated from theological explanations, but also the epoch when the doctrines of Bouddha gathered up the scattered beliefs of a fast-decaying polytheism into one energetic synthesis of monotheism; and (according to the German critics) it was about this time that the polytheism of the Hebrews gave place to monotheism,—Elohim to Jehovah. In fact the great wave of the sixth century is one of progress. But the progress of polytheism to monotheism was a continuous development, whereas the progress of theological philosophy to cosmical philosophy was a revolution, The first was a process of generalisation, the many Gods being resolved into one. The second was a change of attitude; though it also was carried along by a subtle process of generalisation wherein the various powers of nature were resolved into one. The monotheistic tendency is visible in Greece, as elsewhere; the Gods gradually lose their independent autocratic position, and assume subordinate positions under Zeus, who in later systems becomes Intelligence and Goodness. Side by side with this tentative and growing monotheism there is a bold and unhesitating *monodynamism*, the efforts of all the early thinkers being to reduce all the powers of nature to one principle.

The early Greek had no real predecessor from whom to learn. He found himself in the presence of mysteries which he vainly endeavoured to explain by polytheistic agencies. He not only saw reason to disbelieve in these agencies, but saw that if they existed, their arbitrary and inscrutable volitions rendered all explanation and prediction impossible. He sought elsewhere. Thales and the other Ionic thinkers fixed upon common agencies, water, fire, air, &c., and tried to reconstruct the world out of these. The attempt, we know, was unsuccessful; but, as Mr. Grote remarks, the memorable fact is that they made the attempt.

The chief interest therefore which belongs to the speculation of this school arises from the new mental attitude; and, consequently the uncertainty which hangs over the records of the actual tenets is a matter of little moment. It is impossible now to ascertain what really were the opinions of the early thinkers; or how the tenets which they are said to have held, presented a logical coherence to their minds; if in the ensuing pages an attempt is made to give this logical coherence, I beg the reader to understand that it is merely a conjectural representation, not to be accepted as historical fact. For the purposes of History, it is enough if we can mark the leading movements of speculation, and the part which each epoch played in the evolution of Philosophy. The great fact respecting this First Epoch is that the belief in the phenomena of Nature as brought about by the volition of numerous unseen beings was quietly set aside; the causes of all change were sought in conditions of things themselves.

It is on this ground that Thales is considered to be the father of Greek Speculation. The step he took was small, but it was decisive. Accordingly, although the events of his life are shrouded in mystery, or belong to the domain of fable, and although we have record only of a few of his tenets, and those tenets fragmentary and incoherent, yet we know enough of the general tendency of his doctrines to speak of him as the originator of a school.

Thales was born at Miletus, a Greek colony in Asia Minor. The date of his birth is extremely doubtful; but the first year of the 36th Olympiad (B. C. 636) is the date generally accepted. He belonged to one of the most illustrious families of Phœnicia, and took a conspicuous part in all the political affairs of his country. His immense activity in politics has been denied by later writers, as inconsistent with the tradition, countenanced by Plato, of his having spent a life of solitude and meditation; while on the other hand his affection for solitude has been questioned on the ground of his political activity. Yet the two things are perfectly compatible. Meditation does not necessarily unfit a man for action; nor does an active life absorb all his time, leaving him none for meditation. The wise man will strengthen himself by meditation before he acts; and he will act, to test the truth of his meditations.

Miletus was one of the most flourishing Greek colonies; and at the period we are now speaking of, before either a Persian or a Lydian yoke had crushed the energies of its population, it was a fine field for the development of mental energies. Its commerce both by sea and land was immense. Its political constitution afforded opportunities for individual activity. It is more probable that Thales, both by birth and education would be induced to remain there, than that he would travel into Egypt and Crete for the prosecution of his studies, as some maintain, although upon no sufficient authority. The only ground for the conjecture is the fact of Thales having acquired mathematical knowledge; and from very early times, as we see in Herodotus, it was the fashion to derive every branch of knowledge from Egypt. So little consistency is there however in this narrative of his voyages, that he is said to have astonished the Egyptians by showing them how to measure the height of the pyramids by their shadows. A nation so easily astonished by one of the simplest of mathematical problems could have had little to teach. Perhaps the strongest proof that he never travelled into Egypt—or that, if he travelled there, he never learned from the priests—is the absence of all trace, however slight, of any Egyptian doctrine in his philosophy which he might not have found equally well at home.

The distinctive characteristic of the Ionian School, in its first period, was its inquiry into the constitution of the universe. Thales opened this inquiry. It is commonly said: 'Thales taught that the principle of all things was water.' On a first glance, this will perhaps appear a mere extravagance. But the serious student will be slow to accuse his predecessors of sheer and transparent absurdity. The history of Philosophy may be the history of errors; it is not a history of transparent errors. All the systems which have gained acceptance have had a pregnant meaning, or they would not have been accepted. The meaning represented, and in some way, gave consistency to the opinions of the epoch, and as such is worth penetrating. Thales was one of the most extraordinary men that ever lived, and produced an extraordinary revolution. Such a man was not likely to have enunciated a philosophical thought which any child might have refuted. Let us endeavour to penetrate the meaning of his thought; let us see if we cannot in some shape trace its rise and growth in his mind.

Thales, speculating on the constitution of the universe, could not but strive to discover the one principle—the primary Fact—the substance, of which all special existences were but the modes. Seeing around him constant transformations—birth and death, change of shape, of size, and of mode of existence—he could not regard any one of these variable states of existence as Existence itself. He therefore asked himself, What is that invariable Existence of which these are the variable states? In a word, What is the *eginning* of things?

To ask this question was to open the era of philosophical inquiry. Hitherto men had contented themselves with accepting the world as they found it; with believing what they saw; and with adoring what they could not see.

Thales felt that there was a vital question to be answered relative to the beginning of things. He looked around him, and the result of his meditation was the conviction that Moisture was the Beginning. He was impressed with this idea by examining the constitution of the earth. There also he found moisture everywhere. All things he found nourished by moisture; warmth itself he declared to proceed from moisture; the seeds of all things are moist. Water when condensed becomes earth. Thus convinced of the universal presence of water, he declared it to be the beginning of things.

Thales would all the more readily adopt this notion from its harmonising with ancient opinions; such for instance as those expressed in Hesiod's Theogony, wherein Oceanus and Thetis are regarded as the parents of all such deities as had any relation to Nature. 'He would thus have performed for the popular religion that which modern science has performed for the book of Genesis: explaining what before was enigmatical.' *

It is this which gives Thales his position in Philosophy. Aristotle calls him *ὁ τῆς τοιαύτης ἀρχηγὸς φιλοσοφίας*; it was he who made the first attempt to establish a physical Beginning, without the assistance of myths. He has consequently been accused of Atheism by modern writers; but Atheism is the growth of a much later thought, and one under no pretence to be attributed to Thales, except on the negative evidence of Aristotle's silence, which we conceive to be directly counter to the supposition, since it is difficult to suppose Aristotle would have been silent had he thought Thales believed or disbelieved in the existence of anything deeper than Water, and *prior* to it. Water was the *ἀρχή*, the beginning of all. When Cicero, following and followed by writers far removed from the times of Thales,† says that 'he held water to be the beginning of things, but that God was the mind which created things out of the water,' he does violence to the chronology of speculation. We agree with Hegel that Thales could have had no conception of God as pure Intelligence, since *that* is the conception of a more advanced philosophy. We doubt whether he had any conception of a Formative Intelligence or of a Creative Power. Aristotle‡ very explicitly denies that the old Physicists made *any* distinction between Matter (*ἡ ὕλη καὶ τὸ ὑποκείμενον*) and the Moving Principle or Efficient Cause (*ἡ ἀρχὴ τῆς κινήσεως*); and he further adds that Anaxagoras was the first who arrived at the conception of a Formative Intelligence.§ Thales believed in the Gods and in the *generation* of the

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* BENJ. CONSTANT, *Du Polythéisme Romain*, i. 167.

† And uncritically followed by many moderns who feel a difficulty in placing themselves at the point-of-view of ancient speculation.

‡ ARISTOT. *Metaph.* i. 3.

§ It will presently be seen that Diogenes was the first to conceive this.

Gods: they, as all other things, had their origin in water. This is not Atheism, whatever else it may be. If it be true that he held all things to be living, and the world to be full of demons or Gods, there is nothing inconsistent in this with his views about Moisture as the origin, the starting-point, the primary existence.

It is needless however to discuss what were the particular opinions of a thinker whose opinions have only reached us in fragments of uncritical tradition; all we certainly know is that the step taken by Thales was twofold in its prompting:—first, to discover the Beginning, the *prima materia* of all things (ἡ ἀρχή); secondly, to select from among the elements that element which was most potent and omnipresent. To those acquainted with the history of the human mind both these notions will be significant of an entirely new era.

§ II. ANAXIMENES.

Anaximander is by most historians placed after Thales. We agree with Ritter in giving that place to Anaximenes. The reasons on which we ground this arrangement are, first, that in so doing we follow our safest guide, Aristotle; secondly, that the doctrines of Anaximenes are the development of those of Thales: whereas Anaximander follows a totally different line of speculation. Indeed, the whole ordinary arrangement of the Ionian School seems to have proceeded on the conviction that each disciple not only contradicted his master, but also returned to the doctrines of his master's teacher. Thus Anaximander is made to succeed Thales, though quite opposed to him; whereas Anaximenes, who only carries out the principles of Thales, is made the disciple of Anaximander. When we state that 212 years, *i.e.* six or seven generations, are taken up by the lives of the four philosophers said to stand in the relations of teacher and pupil, the reader will be able to estimate the value of the traditional relationship.

Only the names of the great leaders in philosophy were thought worth preserving; all those who merely applied or extended a doctrine were very properly consigned to oblivion. This is also the principle upon which the present history assigns the position of Anaximenes as second to Thales: not as his disciple, but as his historical successor: as the man who, taking up the speculation where Thales and his disciples left it, transmitted it to successors in a more developed form.

Of the life of Anaximenes nothing further is known than that he was born at Miletus, probably in the 63rd Olympiad (B. C. 529), others say in the 58th Olympiad (B. C. 548), but there is no possibility of accurately fixing the date. He is said to have discovered the obliquity of the Ecliptic by means of the gnomon.

Pursuing the method of Thales, he could not satisfy himself of the truth of his doctrine. Water was not to him the most significant element. He felt within him a something which moved him he knew not how, he knew not why; something higher than himself; invisible but ever-present: this he called his life. His life he believed to be air. Was there not also without him, no less than within him, an ever-moving, ever-present, invisible air? The air which was within him, and which he called Life, was it not a part of the air which was without him? and, if so, was not this air the Beginning of Things?

He looked around him, and thought his conjecture was confirmed. The air seemed universal.* The earth was as a broad leaf resting upon it. All things were produced from it; all things were resolved into it. When he breathed, he drew in a part of the universal life. All things were nourished by air, as he was nourished by it.

To Anaximenes, as to most of the ancients, Air breathed and expired seemed the very stream of life, holding together all the heterogeneous substances of which the body was composed, giving them not only unity, but force, vitality. The belief in a living world—that is to say, of the universe as an organism—was very ancient, and Anaximenes, generalising from the phenomena of individual life to universal life, made both dependent on Air. In many respects this was an advance on the doctrine of Thales, and the reader may amuse himself by finding its coincidence with some speculations of modern science. A chemist can truly say, 'Les Plantes et les Animaux dérivent de l'air, ne sont que de l'air condensé, ils *viennent de l'air et y retournent.*'

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* When Anaximenes speaks of Air, as when Thales speaks of Water, we must not understand these elements as they appear in *this* or *that* determinate form on earth, but as Water and Air pregnant with vital energy and capable of infinite transmutations.

§ III. DIOGENES OF APOLLONIA.

Diogenes of Apollonia is the proper successor to Anaximenes, although, from the uncritical arrangement usually adopted, he is made to represent no epoch whatever. Thus, Tennemann places him after Pythagoras. Hegel, by a strange oversight, says that we know nothing of Diogenes but the name.

Diogenes was born at Apollonia, in Crete. More than this we are unable to state with certainty; but as he is said to have been a contemporary of Anaxagoras, we may assume him to have flourished about the 80th Olympiad (B. C. 460). His work *On Nature* was extant in the time of Simplicius (the sixth century of our era), who extracted some passages from it.

Diogenes adopted the tenet of Anaximenes respecting Air as the origin of things; but he gave a wider and deeper signification to the tenet by pointing out the analogy of Air with the Soul.* Struck with the force of this analogy, he was led to push to its ultimate limits. What is it, he may have asked himself, which constitutes Air the origin of things? Clearly its vital force. The air is a soul; therefore it is living and intelligent. But this Force of Intelligence is a higher thing than the Air, through which it manifests itself; it must consequently be prior in point of time; it must be the ἀρχή philosophers have sought. The Universe is a living being, spontaneously evolving itself, deriving its transformation from its own vitality.

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* By Soul (ψυχή) we must understand Life in its most general meaning rather than Mind in the modern sense. Thus the treatise of Aristotle περὶ ψυχῆς is a treatise on the Vital Principle, including Mind, not a treatise on Psychology.

There are two remarkable points in this conception, both indicative of very great progress in speculation. The first is the attribute of Intelligence, with which the ἀρχή is endowed. Anaximenes considered the primary substance to be an animated substance. Air was Life, in his system; but the Life did not necessarily imply Intelligence. Diogenes saw that Life was not only Force, but Intelligence; the Air which stirred within him not only prompted, but instructed. The Air, as the origin of all things, is necessarily an eternal, imperishable substance; but, as soul, it is also necessarily endowed with consciousness. 'It knows much,' and this knowledge is another proof of its being the primary substance; 'for without Reason,' he says, 'it would be impossible for all to be arranged duly and proportionately; and whatever object we consider will be found to be arranged and ordered in the best and most beautiful manner.' Order can result only from Intelligence; the Soul is therefore the first (ἀρχή). This conception was undoubtedly a great one; but that the reader may not exaggerate its importance, nor suppose that the rest of Diogenes' doctrines were equally rational, we must for the sake of preserving historical truth advert to one or two of his applications of the conception. Thus:

The world, as a living unity, must like other individuals derive its vital force from the Whole: hence he attributed to the world a set of respiratory organs, which he fancied he discovered in the stars. All creation and all material action were but respiration and exhalation. In the attraction of moisture to the sun, in the attraction of iron to the magnet, he equally saw a process of respiration. Man is superior to brutes in intelligence because he inhales a purer air than brutes who bow their heads to the ground.

These attempts at the explanation of phenomena will suffice to show that although Diogenes had made a large stride, he had accomplished very little of the journey.

The second remarkable point indicated by his system is the manner in which it closes the inquiry opened by Thales. Thales, starting from the conviction that one of the four elements was the origin of the world, and Water that element, was followed by Anaximenes, who thought that not only was Air a more universal element than Water, but that, being life, it must be the universal Life. To him succeeded Diogenes, who saw that not only was Air Life, but Intelligence, and that Intelligence must have been the First of Things.

I concur therefore with Ritter in regarding Diogenes as the last philosopher attached to the Physical method; and that in his system the method receives its consummation. Having thus traced one great line of speculation, we must now cast our eyes upon what was being contemporaneously evolved in another direction.

CHAPTER II.

THE MATHEMATICIANS.

§ I. ANAXIMANDER OF MILETUS.

'AS we now, for the first time in the history of Greek Philosophy, meet with contemporaneous developments, the observation will not perhaps be deemed superfluous that in the earliest times of philosophy, historical evidences of the reciprocal influence of the two lines either entirely fail or are very unworthy of credit; on the other hand, the internal evidence is of very limited value, because it is impossible to prove a complete ignorance in one, of the ideas evolved and carried out in the other; while any argument drawn from an apparent acquaintance therewith is far from being extensive or tenable, since all the olden philosophers drew from one common source—the national habit of thought. When indeed these two directions had been more largely pursued, we shall find in the controversial notices sufficient evidence of an active conflict between these very opposite views of nature and the universe. In truth, when we call to mind the inadequate means at the command of the earlier philosophers for the dissemination of their opinions, it appears extremely probable that their respective systems were for a long time known only within a very narrow circle. On the supposition, however, that the philosophical impulse of these times was the result of a real national want, it becomes at once probable that the various elements began to show themselves in Ionia nearly at the same time, independently and without any external connection.' *

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* RITTER: *Hist. Phil.* i. 265.

The chief of the school we are now about to consider was Anaximander, of Miletus, whose birth may be dated in the 42nd Olympiad (B. C. 610). He is sometimes called the friend and sometimes the disciple of Thales. His reputation both for political and scientific knowledge, was very great; and many important inventions are ascribed to him, amongst others that of the sun-dial and the sketch of a geographical map. His calculations of the size and distance of the heavenly bodies were committed to writing in a small work which is said to be the earliest of all philosophical writings. He was passionately addicted to mathematics, and framed a series of geometrical problems. He was the leader of a colony to Apollonia; and he is also reported to have resided at the court of the Tyrant Polycrates, in Samos, where also lived Pythagoras and Anacreon.

No two historians are agreed in their interpretation of Anaximander's doctrines; few indeed are agreed as to the historical position he is to occupy.

Anaximander is stated to have been the first to use the term ἀρχή for the Beginning of things. What he meant by this term principle is variously interpreted by the ancient writers; for, although they are unanimous in stating that he called it the infinite (τὸ ἄπειρον), what he understood by the infinite is yet undecided.*

On a first view, nothing can well be less intelligible than this tenet: 'The Infinite is the origin of all things.' It either looks like the monotheism of a far later date,† or like the word-jugglery of mysticism. It is neither more nor less difficult of comprehension than the tenet of Thales, that 'Water is the origin of all things.' Let us cast ourselves back in imagination into those early days, and see if we cannot account for the rise of such an opinion.

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* RITTER: *Hist. Phil.* i. 267.

† Which it certainly could not have been. To prevent any misconception of the kind, we may merely observe that the Infinite here meant, was not even the Limitless power, much less the Limitless mind, implied in the modern conception. In Anaxagoras, who lived a century later, we find τὸ ἄπειρον to be no more than vastness.—See SIMPLICIUS, *Phys.* 33, *b*, quoted in RITTER.

On viewing Anaximander side by side with his great predecessor and friend, Thales, we cannot but be struck with the exclusively abstract tendency of his speculations. Thales, whose famous maxim, 'Know thyself,' directed the mind to objects essentially concrete, may serve as a contrast to Anaximander, whose axiom, 'The Infinite is the origin of all things,' is a pure effort of abstraction. Let us concede to him this tendency; let us see in him the geometrician rather than the moralist or physicist; let us endeavour to understand how all things presented themselves to his mind in the abstract form, and how mathematics was to him the science of sciences, and we shall then perhaps be able to understand his tenets.

Thales, in searching for the origin of things, found it in Water. But Anaximander, accustomed to abstractions, could not accept so concrete a thing as Water: something more ultimate in the analysis was required. Water itself, which in common with Thales he held to be the material of the universe, was it not subject to conditions? What were those conditions? This Moisture, of which all things are made, does it not cease to be moisture in many instances? And can that which is the origin of all ever change, ever be confounded with individual things? Water itself is a Thing; but a Thing cannot be All Things. The ἀρχή, he said, was not Water; it must be the Unlimited All, τὸ ἄπειρον.

Vague and profitless enough this theory will doubtless appear. The abstraction 'All' will seem a mere distinction in words. But in Greek Philosophy, as we shall repeatedly notice, distinctions in words were generally equivalent to distinctions in things. And if the reader reflects how the mathematician, by the very nature of his science, is led to regard abstractions as entities—to separate form, and treat of it as if it alone constituted body—there will be no difficulty in conceiving Anaximander's distinction between all Finite Things and the Infinite All.

It is thus only we can explain his tenet; and this explanation seems borne out by the testimony of Aristotle and

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Theophrastus, who agree that by the Infinite he understood the multitude of elementary parts out of which individual things issued by separation. 'By separation:' the phrase is significant. It means the passage from the abstract to the concrete—the All realising itself in the Individual Thing. Call the Infinite by the name of Existence and say, 'There is Existence *per se*, and Existence *per aliud*; the former is the ever-living fountain whence flow the various *existing Things*.' In this way we may, perhaps, make Anaximander's meaning intelligible.

'Anaximander,' says Ritter, 'is represented as arguing that the primary substance must have been infinite to be all-sufficient for the limitless variety of produced things with which we are encompassed. Now, although Aristotle especially characterises this infinite as a mixture, we must not think of it as a mere multiplicity of primary material elements; for to the mind of Anaximander it was a Unity immortal and imperishable—an ever-producing energy. This production of individual things he derived from an eternal motion of the Infinite.'

The primary Being, according to Anaximander, is unquestionably a Unity. It is One yet All. It comprises within itself the multiplicity of elements from which all mundane things are composed; and these elements only need to be separated from it to appear as separate phenomena of nature. Creation is the decomposition of the Infinite. How does this decomposition originate? By the eternal motion which is the condition of the Infinite. 'He regarded,' says Ritter, 'the Infinite as being in a constant state of incipiency, which, however, is nothing but a constant secretion and concretion of certain immutable elements; so that we might well say the parts of the whole are constantly changing, while the whole is unchangeable.'

The idea of elevating an abstraction into a being, and making it the origin of all things, is questionable enough; it is as if we were to say, 'There are numbers 1, 2, 3, 20, 80, 100; but there is also Number in the abstract, of which these individual numbers are but the concrete realisation: without Number there would be no numbers.' Yet so difficult is it for the human mind to divest itself of its own abstractions, and to consider them as abstractions, that this error lies at the root of the majority of metaphysical systems.

Anaximander separated himself from Thales by regarding the abstract as of higher significance than the concrete: and in this tendency we see the origin of the Pythagorean or mathematical school. The speculations of Thales aimed at discovering the material constitution of the universe; they were founded, in some degree, upon an induction from observed facts, however imperfect that induction might be. The speculations of Anaximander were wholly deductive; and, as such, tended towards mathematics, the science of pure deduction.

As an example of this mathematical tendency we may allude to his cosmical speculation. The central point in his cosmopœia was the earth, which, being of a cylindrical form, with a base in the ratio 1 : 3 to its altitude, was retained in its centre by the aid and by the equality of its distances from all the limits of the world.

From the foregoing we may judge of the propriety of the ordinary historical arrangement which places Anaximander as the successor of Thales. It is clear that he originated one of the great lines of speculative inquiry, and that one, perhaps, the most curious in all antiquity. By Thales, Water, the origin of things, was held to be a real physical element, which in the hands of his successors became gradually transformed into a merely representative emblem of something wholly different (Life or Mind); and the element which lent its name as the representative was looked upon as a secondary phenomenon, derived from that primary force of which it was the emblem. Water was the real primary element with Thales; with Diogenes, Water (having previously been displaced for Air) was but the emblem of Mind.

Anaximander's conception of the All, though abstract, is nevertheless to a great degree physical: it is All Things.

His conception of the Infinite was not purely ideal; it had not passed into the state of a symbol; it was the primary fact of existence; above all, it involved no conception of intelligence except as a mundane finite thing. His τὸ ἄπειρον was the Infinite Existence, but not the Infinite Mind. This later development we shall meet with hereafter in the Eleatics.

§ II. PYTHAGORAS.

The life of Pythagoras is shrouded in the dim magnificence of legends, from which it is hopeless to attempt to extricate it. Certain general indications are doubtless to be trusted; but they are few and vague.

As a specimen of the trouble necessary to settle any one point in this biography, we will here cite the various dates given by ancient authors and modern scholars as the results of their inquiries into his birth. Diodorus Siculus says 61st Olympiad; Clemens·Alex., 62nd Ol.; Eusebius, 63rd or 64th Ol.; Stanley, 53rd Ol.; Gale, 60th Ol.; Dacier, 47th Ol.; Bentley, 43rd Ol.; Lloyd, 43rd Ol.; Dodwell, 52nd Ol.; Ritter, 49th Ol.; Thirlwall, 51st Ol.; so that the accounts vary within the limits of eighty-four years. If we must make a choice, we should decide with Bentley; not only out of respect for that magnificent scholar, but because the date he assigns agrees with the probable date of the birth of one known to have been Pythagoras's friend and contemporary, Anaximander.

Pythagoras is usually classed amongst the great founders of Mathematics; and this receives confirmation from what we know of the general scope of his labours, and from the statement that he was chiefly occupied with the determination of extension and gravity, and measuring the ratios of musical tones. His science and skill are exaggerated, as indeed is every portion of his life. Fable assigns him the place of a saint, a worker of miracles, and a teacher of more than human wisdom. His very birth was marvellous, some accounts making him the son of Hermes, others of Apollo: in proof of the latter, he is said to have exhibited a golden thigh. With a word he tamed the Daunian bear, which was laying waste the country; with a whisper he restrained an ox from devouring beans. He was heard to lecture at different places, such as Metapontum and Taurominium, on the same day and at the same hour. As he crossed the river, the river-god saluted him with 'Hail, Pythagoras!' and to him the harmony of the spheres was audible music.

Fable enshrines these wonders. But that they could exist, even as legendary lore, is significant of the greatness of Pythagoras. It is well said by Sir Lytton Bulwer that 'not only all the traditions respecting Pythagoras, but the certain fact of the mighty effect that in his single person he afterwards wrought in Italy, prove him also to have possessed that nameless art of making a personal impression upon mankind, and creating individual enthusiasm, which is necessary to those who obtain a moral command, and are the founders of sects and institutions. It is so much in conformity with the manners of the time and the objects of Pythagoras, to believe that he diligently explored the ancient religious and political systems of Greece, from which he had been long a stranger, that we cannot reject the traditions (however disfigured with fable) that he visited Delos, and affected to receive instructions from the pious ministrants of Delphi.'* Whenever we find romantic or miraculous deeds narrated we may be certain that the hero was great enough at least to sustain the weight of this crown of fabulous glory.

But the greatness thus indicated is thought to be diminished by the tradition of his having borrowed all his learning and philosophy from the East. Could not so great a man dispense with foreign teachers? Assuredly; but this is no proof that he did dispense with them. The question of fact is not to be thus disposed of. The historian will ask for better evidence. Unfortunately the evidence on this subject is of little worth. Not until a century and a half had elapsed

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Athens, its Rise and Fall, ii. 412.

from the death of Pythagoras was there any statement, now recoverable, made respecting this voyage into Egypt, and then it occurred in an oration by Isocrates, in which the constitution of Lacedæmon is also derived from Egypt.* This is obviously untrustworthy. Aristotle, a better authority, never alludes to Egypt. Nor did the notion gain general acceptance until fifty years or so after Isocrates, when the Greeks had come into frequent connection with the East, and all marvels were supposed to have their origin there. The imaginative Greeks were peculiarly prone to invest the distant and the foreign with striking attributes. They could not believe in wisdom springing up from amongst them; they turned to the East as to a vast and unknown region, whence all novelty, even of thought, must come.

When we consider, as Ritter observes, how Egypt was peculiarly the wonder-land of the olden Greeks, and how, even in later times, when it was so much better known, it was still, as it is to this day, calculated to excite awe by the singular character of its people, which, reserved in itself, was always obtruding on the observer's attention through the stupendous structures of national architecture, we can easily imagine how the Greeks were led to establish some connection between this mighty East and their great Pythagoras. If Pythagoras had travelled into Egypt, or indeed listened to the relations of those who had done so, he would indeed have thereby obtained as much knowledge of Egyptian customs as appears in his system without his having had the least instruction from the Priesthood. The doctrine of metempsychosis was a public doctrine with the Egyptians; though, as Ritter says, he might not have been indebted to them even for that. Funeral customs and abstinence from particular kinds of food were things to be noticed by any traveller. But the fundamental objection to Pythagoras having been instructed by the Egyptian Priests, is to be sought in the constitution of the priestly caste itself. If the priests were so jealous of instruction as not to bestow it even on the most favoured of their countrymen beyond their caste, how unreasonable to suppose that they would bestow it on a stranger, and one of a different religion!

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* ZELLER: *Vorträge und Abhandlungen geschichtlichen Inhalts*, 1865, p. 46.

The ancient writers were sensible of this objection. To get rid of it they invented a story which we shall give as it is given by Brucker. Polycrates was in friendly relations with Amasis, King of Egypt, to whom he sent Pythagoras, with a recommendation to enable him to gain access to the Priests. The King's authority was not sufficient to prevail on the Priests to admit a stranger to their mysteries: they referred Pythagoras therefore to Thebes, as of greater antiquity. The Theban Priests were awed by the Royal mandate, but were loath to admit a stranger to their rites. To disgust the novice, they forced him to undergo several severe ceremonies, amongst which was circumcision. But he could not be discouraged. He obeyed all their injunctions with such patience that they resolved to take him into their confidence. He spent two-and-twenty years in Egypt, and returned perfect master of all science. This is not a bad story: the only objection to it is that it has not a fact to rest on.

To Pythagoras the invention of the word philosopher is ascribed. When he was in Peloponnesus he was asked by Leontius, what was his art. 'I have no art; I am a philosopher,' was the reply. Leontius never having heard the name before, asked what it meant. Pythagoras gravely answered, 'This life may be compared to the Olympic games: for as in this assembly some seek glory and the crowns; some by the purchase or by the sale of merchandise seek gain; and others, more noble than either, go there neither for gain nor for applause, but solely to enjoy this wonderful spectacle, and to see and know all that passes. We, in the same manner, quit our country, which is Heaven, and come into the world, which is an assembly where many work for profit, many for gain, and where there are but few who, despising avarice and vanity, study nature. It is these last whom I call philosophers; for as there is nothing more noble than to be a spectator without any personal interest, so in this life the contemplation and knowledge of nature are infinitely more honourable than any other application.'

It is necessary to observe that the ordinary interpretation of philosopher, as Pythagoras meant it, a 'lover of wisdom,' is only accurate where the utmost extension is given to the word 'lover.' Wisdom must be the 'be-all and the end-all here' of the philosopher, and not simply a taste or a pursuit. It must be his mistress, to whom a life is devoted. This was the meaning of Pythagoras. The word which had before designated a wise man was σοφός. But he wished to distinguish himself from the *Sophoi*, or philosophers of his day, by name, as he had done by system. What was the meaning of *Sophos*? Unquestionably what we mean by a wise man, as distinct from a philosopher; one whose wisdom is practical, and turned to practical purposes; one who loves wisdom not for its own sake so much as for the sake of its uses. Now Pythagoras loved wisdom for its own sake. Contemplation was to him the highest exercise of humanity: to bring wisdom down to the base purposes of life was desecration. He called himself therefore a philosopher—a lover of Wisdom—to demarcate himself from those who sought Wisdom only as a power to be used for ulterior ends.

This interpretation of the word philosopher may explain some of his opinions. Above all, it explains the constitution of his Secret Society, into which no one was admitted except after a severe initiation. For five years the novice was condemned to silence. Many relinquished the task in despair; they were unworthy of the contemplation of pure wisdom. Others, in whom the tendency to loquacity was observed to be less, had the period commuted. Various humiliations had to be endured: various experiments were made of their powers of self-denial. By these Pythagoras judged whether they were worldly-minded, or whether they were fit to be admitted into the sanctuary of science. Having purged their souls of the baser particles by purifications, sacrifices, and initiations, they were admitted to the sanctuary, where the higher part of the soul was purged by the knowledge of truth, which consists in the knowledge of immaterial and eternal things. For this purpose Pythagoras commenced philosophy with Mathematics, because, as they just preserve the medium between corporeal and incorporeal things, they can alone draw off the mind from Sensible things and conduct them to Intelligibles.

By his later disciples he was venerated as a God. He who could transcend all earthly struggles, and the great ambitions of the greatest men, to live only for the sake of wisdom, was he not of a higher stamp than ordinary mortals? Well might later historians picture him as clothed in robes of white, his head crowned with gold, his aspect grave, majestical, and calm; above the manifestation of any human joy, of any human sorrow; enwrapt in contemplation of the deeper mysteries of existence; listening to music and the hymns of Homer, Hesiod, and Thales, or listening to the harmony of the spheres. And to a lively, talkative, quibbling, active, versatile people like the Greeks, what a grand phenomenon must this solemn, earnest, silent, meditative man have appeared?

'Pythagoras,' says Sir Lytton Bulwer, 'arrived in Italy during the reign of Tarquinius Superbus, according to the testimony of Cicero and Aulus Gellius, and fixed his residence in Croton, a city in the bay of Tarentum, colonised by Greeks of the Achæan tribe. If we may lend a partial credit to the extravagant fables of later disciples, endeavouring to extract from florid superaddition some original germ of simple truth, it would seem that he first appeared in the character of a teacher of youth, and, as was not unusual in those times, soon rose from the preceptor to the legislator. Dissensions in the city favoured his objects. The Senate (consisting of a thousand members, doubtless of a different race from the body of the people; the first the posterity of the settlers, the last the native population) availed itself of the arrival and influence of an eloquent and renowned philosopher. He lent himself to the consolidation of aristocracies, and was equally inimical to democracy and tyranny. But his policy was that of no vulgar ambition. He refused, at least for a time, ostensible power and office, and was contented with instituting an organised and formidable society, not wholly dissimilar to that mighty Order founded by Loyola in times comparatively recent. The disciples admitted into this society underwent examination and probation: it was through degrees that they passed into its higher honours, and were admitted into its deeper secrets. Religion made the basis of the fraternity, but religion connected with human ends of advancement and power. He selected the three hundred who at Croton formed his Order, from the noblest families, and they were professedly reared to know themselves, that so they might be fitted to command the world. It was not long before this society, of which Pythagoras was the head, appears to have supplanted the ancient Senate, and obtained the legislative administration. In this Institution Pythagoras stands alone; no other founder of Greek philosophy resembles him. By all accounts he also differed from the other sages of his time in his estimation of the importance of women. He is said to have lectured to, and taught them. His wife was herself a philosopher, and fifteen disciples of the softer sex rank among the prominent ornaments of his school. An Order based upon so profound a knowledge of all that can fascinate or cheat mankind could not fail to secure a temporary power. His influence was unbounded in Croton: it extended to other Italian cities; it amended or overturned political constitutions; and had Pythagoras possessed a more coarse and personal ambition, he might perhaps have founded a mighty dynasty, and enriched our social annals with the result of a new experiment. But his was the ambition not of a hero, but a sage. He wished rather to establish a system than to exalt himself. His immediate followers saw not all the consequences that might be derived from the fraternity he founded; and the political designs of his gorgeous and august philosophy, only for awhile successful, left behind them but the mummeries of an impotent freemasonry, and the enthusiastic ceremonies of half-witted ascetics.

'It was when this power, so mystic and so revolutionary, had, by the means of branch societies, established itself throughout a considerable portion of Italy, that a general feeling of alarm and suspicion broke out against the sage and his sectarians. The anti-Pythagorean risings, according to Porphyry, were sufficiently numerous and active to be remembered long generations afterwards. Many of the sage's friends are said to have perished, and it is doubtful whether Pythagoras himself fell a victim to the rage of his enemies, or died, a fugitive, amongst his disciples at Metapontum. Nor was it until nearly the whole of Lower Italy was torn by convulsions, and Greece herself drawn into the contest as pacificator and arbiter, that the ferment was allayed. The Pythagorean institutions were abolished, and the timocratic democracies of the Achæans rose upon the ruins of those intellectual but ungenial oligarchies.

'Pythagoras committed a fatal error when, in his attempt to revolutionise society, he had recourse to aristocracies for his agents. Revolutions, especially those influenced by religion, can never be worked out but by popular emotions. It was from this error of judgment that he enlisted the people against him; for by the account of Neanthes, related by Porphyry, and indeed from all other testimony, it is clearly evident that to popular not party commotion his fall must be ascribed. It is no less clear that after his death, while his philosophical sect remained, his political code crumbled away. The only seeds sown by philosophers which spring up into great States, are those that, whether for good or evil, are planted in the hearts of the Many.'

We cannot omit the story which so long amused the world, respecting his discovery of the musical chords. Hearing one day, in the shop of a blacksmith, a number of men striking successively a piece of heated iron, he remarked that all the hammers, except one, produced harmonious chords, viz. the octave, the fifth, and the third; but the sound between the fifth and the third was discordant. On entering the workshop, he found the diversity of sounds was owing to the difference in the weight of the hammers. He took the exact weights, and on reaching home suspended four strings of equal dimensions, and hanging a weight at the end of each of the strings equal to the weight of each hammer, he struck the strings, and found the sounds correspond with those of the hammers. He then proceeded to the formation of a musical scale.

This story is significant of the lax credulity which allows historical fictions to become current without any attempt being made to ascertain whether they have even a basis in fact. A story should be shown to be within the limits of possibility; that is the least demand we can make. But, in the present case, 'Though both hammers and anvil have been swallowed by ancients and moderns with most ostrich-like digestion, yet upon examination and experiment it appears that hammers of different size and weight will no more produce different tones upon the same anvil, than bows or clappers of different size will from the same string or bell.'*

§ III. Philosophy of Pythagoras.

There is no system more difficult to seize and represent accurately than that commonly called the Pythagorean. It has made prodigious noise in the world; and is consequently often confounded with its distant echoes. An air of mystery, always inviting to a large class, surrounds it. The marvellous relations concerning its illustrious founder, the supposed assimilation it contains of various elements of Eastern speculation, and the supposed symbolical nature of its doctrines, have all equally combined to render it attractive and contradictory: Every dogma in it has been traced to some prior philosophy. Not a vestige will remain to be called the property of the teacher himself, if we restore to the Jews, Indians, Egyptians, Chaldeans, Phœnicians, nay even

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* Burney, *Hist. of Music.*

Thracians, those various portions which he is declared to have borrowed from them.

All this pretended plagiarism we incline to think extremely improbable: Pythagoras was a consequence of Anaximander; and his doctrines, in as far as we can gather their leading tendency, were but a continuation of that abstract and deductive philosophy of which Anaximander was the originator.

At the outset we must premise, that whatever interest there may be in following out the particular opinions recorded as belonging to Pythagoras, such a process is quite incompatible with our plan. The greatest uncertainty still exists, and must for ever exist amongst scholars, respecting the genuineness of those opinions. Even such as are recorded by trustworthy authorities are always vaguely attributed by them to 'the Pythagoreans,' not to Pythagoras. Modern criticism has clearly shown that the works attributed to Timæus and Archytas are spurious; and that the supposed treatise of Ocellus Lucanus on the 'Nature of the All' cannot even have been written by a Pythagorean. Plato and Aristotle, the only ancient writers who are to be trusted in this matter, do not attribute any peculiar doctrines to Pythagoras. The reason is simple. Pythagoras taught in secret; and never wrote. What he taught his disciples it is impossible accurately to learn from what those disciples themselves taught. His influence over their minds was unquestionably immense; and this influence would communicate to his school a distinctive tendency, but not one accordant doctrine; for each scholar would carry out that tendency in the direction which best suited his tastes and powers.

The extreme difficulty of ascertaining accurately what Pythagoras thought, or even what his disciples thought, will not embarrass us if we can but ascertain the general tendency of their speculations, and, above all, the peculiarity of their method. For this difficulty—which, to the critical historian insuperable, only affects us indirectly—renders indeed our endeavour to seize the characteristic method and tendency more hazardous and more liable to contradiction; but it does not compel us to interrupt our march for the sake of storming every individual fortress of opinion we may encounter on our way. We have to trace out the map of the philosophical world; we must be careful to ascertain the great outlines of each country: this we may be enabled to do without absolutely being acquainted with the internal varieties of that country, for geographers are not bound to be also geologists.

What were the method and tendency of the Pythagorean school? The method, purely deductive; the tendency, wholly towards the consideration of abstractions as the only true materials of science. Hence the name not unfrequently given to that school, of 'the Mathematical.' The list of Pythagoreans embraces the greatest names in mathematics and astronomy,—Archytas and Philolaus, and subsequently Hipparchus and Ptolemy.[*]

We may now perhaps, in some sort, comprehend what Pythagoras meant when he taught that *Numbers* were the *principles of Things*: *τοὺς ἀριθμοὺς αἰτίους εἶναι τῆς οὐσίας*,[†] or, to translate more literally, 'Numbers are the cause of the material existence of Things:' *οὐσία* being here evidently the expression of concrete existence. This is confirmed by the wording of the formula given elsewhere by Aristotle, that Nature is *realised* from Numbers: *τὴν φύσιν ἐξ ἀριθμῶν συνιστᾶσι.*[‡] Or again: Things are but the copies of Numbers: *μίμησιν εἶναι τὰ ὄντα τῶν ἀριθμῶν.*[§] What Pythagoras meant was, that Numbers were the ultimate nature of things. Anaximander saw that things in themselves are not final; they are constantly changing both position and attributes; they are variable, and the principle of existence must be invariable; he called that invariable existence THE ALL.

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[*] Æschylus, a disciple of Pythagoras, makes his Titan boast of having discovered for men, Number, the highest of the sciences; Καὶ μὴν ἀριθμὸν, ἔξοχον σοφισμάτων, ἐξεῦρον αὐτοῖς.—*Prom.* 459.

[†] Aristot. *Metaph.* i. 6.

[‡] *De Cœlo*, iii. 1.

[§] *Metaph.* i. 6.

Pythagoras saw that there was an invariable existence lying beneath these varieties; but he wanted some more definite expression for it, and he called it Number. Thus each individual thing may change its position, its mode of existence; all its peculiar attributes may be destroyed except one, namely its numerical attribute. It is always 'one' thing; nothing can destroy that numerical existence. Combine the thing in every possible variety of ways, and it still remains 'one;' it cannot be less than 'one,' it cannot be made more than 'one.' Resolve it into its minutest particles, and each particle is 'one.' Having thus found that numerical existence was the only invariable existence, he was easily led to proclaim all things to be but copies of Numbers. 'All phenomena must originate in the simplest elements,' says Sextus Empiricus, 'and it would be contrary to reason to suppose the Principle of the Universe to participate in the nature of sensible phenomena. The *Principia* are consequently not only invisible and intangible, but also incorporeal.'

As numerical existence is the ultimate state at which analysis can arrive with respect to finite things, so also is it the ultimate state at which we can arrive with respect to the Infinite, or Existence in itself. The Infinite, therefore, must be one. One is the absolute Number; it exists in and by itself; it has no need of any relation with anything else, not even with any other number; Two is but the relation of One to One. All modes of existence are but finite aspects of the Infinite; so all numbers are but numerical relations of the one. In the original one all numbers are contained, and consequently the elements of the whole world.

Observe, moreover, that one is necessarily the ἀρχή—the beginning of things so eagerly sought by philosophers, since, wherever you begin, you must begin with one. Suppose the number be three, and you strike off the initial number to make two, the second then will be one. In a word, one is the Beginning of all things.

The verbal quibble on which this, as indeed the whole system reposes, need not excite any suspicion of the sincerity of Pythagoras. The Greeks were unfortunately acquainted with no language but their own: and, as a natural consequence, mistook distinctions in language for distinctions in things. It has been well said by Dr. Whewell, that 'all the first attempts to comprehend the operations of Nature led to the introduction of abstract conceptions, vague indeed, but not therefore unmeaning. And the next step in philosophising necessarily was to make those vague abstractions more clear and fixed, so that the logical faculty should be able to employ them securely and coherently. But there were two ways of making this attempt; the one, by examining the words only, and the thoughts which they call up: the other, by attending to the facts and things which bring these abstract terms into use. The Greeks followed the *verbal* or *notional* course, and failed.*

It is only by means of the above explanation that we can credit the belief in distinctions so wire-drawn as those of Pythagoras; it is only thus that we can understand how he could have held that Numbers were Beings. Aristotle attributes this conception to the fondness of Pythagoras for mathematics, which concerns itself with the abstract, not with the material existence of sensible things; but surely this is only half the explanation? The mathematicians in our day not only reason entirely with symbols, which stand as the representatives of things, without having the least affinity or resemblance to the things (being wholly arbitrary *marks*), but very many of these men never trouble themselves at all with inspecting the things about which they reason by means of symbols. Much of the science of Astronomy is carried on by those who never use a telescope; it is carried on by figures upon paper, and calculations of those figures. Because, however, astronomers use numbers as symbols, they do not suppose that numbers are more than symbols. Pythagoras was not able to make this distinction.

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* *History of the Inductive Sciences*, i. 34.

He believed that numbers were things in reality, not merely in symbol. When therefore Ritter says that the Pythagorean formula 'can only be taken symbolically,' he appears to us to commit a great anachronism, and to antedate by several centuries a mode of thought at variance with all we know of Greek Philosophy; at variance also with the express testimony of Aristotle, who says, 'The Pythagoreans did not separate Numbers from Things. They held Number to be the Principle and Material of things, no less than their essence and power.' * The notion that because we, in the present state of philosophy, cannot conceive Numbers otherwise than as symbols, therefore Pythagoras must have conceived them in the same way, is one which has been very widely spread, but which we hold to be as great an anachronism as Shakespeare's Hector quoting Aristotle, or Racine exhibiting the etiquette of Versailles in the camp at Aulis. And Ritter himself, after having stated with considerable detail the various points in this philosophy, admits that the essential doctrine rests on 'the derivation of all in the world from mathematical relations, and on the resolution of the relations of space and time into those of units or numbers. All proceeds from the original one, or primary number, or from the plurality of units or numbers into which the one in its life-development divides itself.' Now, to suppose that this doctrine was simply mathematical and not mathematico-cosmological, is to violate all principles of historical philosophy; for it is to throw the opinions of our day into the period of Pythagoras. As a final proof, consider the formula, *μίμησιν εἶναι τὰ ὄντα τῶν ἀριθμῶν*, 'Things are the copies of Numbers.' This formula, which of all others is the most favourable to the notion we are combating, will on a close inspection exhibit the real meaning of Pythagoras to be directly the reverse of symbolical. Symbols are arbitrary marks, bearing no resemblance to the things they represent; a, b, c, x are but letters of the alphabet; the mathematician makes them the symbols of quantities, or of things; but no one would call x the copy of an unknown quantity. But what is the meaning of Things being copies of Numbers, if they are Numbers in essence? The meaning we must seek in anterior explanations. We shall there find that Things are the *concrete existences of abstract Existence*; and that when Numbers are said to be the *principia*, it is meant that the forms of material things, the original essences, which remain invariable, are Numbers.* Thus a stone is one stone; as such it is a copy of One; it is the realisation of the abstract One into a concrete stone. Let the stone be ground to dust, and the particle of dust is still a copy, another copy of the One.

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* *Metaph.* i. 5. Perhaps it would be more accurate to say, 'Numbers are the Beginning of things, the cause of their material existence (ὕλην τοῖς οὖσι: Aristotle has before defined ὕλη as *causa materialis*, cap. 3) and of their modifications (ὡς πάθη τε καὶ ἕξεις).'

The whole chapter should be consulted by those who believe in the symbolical meaning; a belief Aristotle had certainly no suspicion of. I have translated all the passages bearing on this point at the close of this Section.

The reader will bear in mind that we have only a few mystical expressions, such as, 'Number is the principle of Things,' handed down to us as the doctrines of a thinker who created a considerable school, and whose influence on philosophy was undeniably immense. We have to interpret these expressions as we best can. Above all, we have to give them some appearance of plausibility; and this not so much an appearance of plausibility to modern thinkers as what would have been plausible to the ancients. Now, as far as we have familiarised ourselves with the antique modes of thought, our interpretation of Pythagoras is one which, if not the true, is at any rate very analogous to it: by such a logical process he *might* have arrived at his conclusions, and for our purpose this is almost the same as if he had arrived at them by it.

This history has but to settle two questions respecting

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* Hence we must caution against supposing Pythagoras to have anticipated the theory of 'definite proportions.' Numbers are not the laws of combination, nor the expression of those laws, but the essences which remain invariable under every variety of combination.

Pythagoras: first, did he regard Numbers as symbols merely, or as entities? Second, if he regarded them as entities, how could he have arrived at such an opinion? The second of these questions has been answered in a hypothetical manner in the remarks just made; but of course the explanation is worthless if the first question be negatived, and to that question therefore we now turn. If we are to accept the authority of Aristotle, the question is distinctly and decisively answered, as we have seen, in favour of the reality of Numbers. It is true that doubts are thrown on the authority of Aristotle, who is said to have misunderstood or misrepresented the Pythagorean doctrine; but when we consider the comprehensiveness and exactness of Aristotle's mighty intellect; when we consider further that he had paid more than his usual attention to the doctrines of the Pythagoreans, having written a special treatise thereon, we shall be slow to reject any statement he may make, unless better evidence is produced; and where can better evidence be sought? Either we must accept Aristotle, or be silent on the whole matter; unless, indeed, we prefer—as many prefer—our own sagacity to his authority. It may be stated as a final consideration, that the view taken by the Stagirite is in perfect conformity with the opinions of Anaximander; so that, given the philosophy of the master, we might *à priori* deduce the opinions of the pupil.

The nature of this Work forbids any detailed account of the various opinions attributed to Pythagoras on subsidiary points. But we may instance his celebrated theory of the music of the spheres as a good specimen of the deductive method employed by him. Assuming that everything in the great Arrangement (κόσμος), which he called the world, must be harmoniously arranged, and assuming that the planets were at the same proportionate distances from one another as the divisions of the monochord, he concluded that in passing through the ether they must make a sound, and that this sound would vary according to the diversity of their magnitude, velocity, and relative distance. Saturn gave the deepest tone, as being the furthest from the earth; the Moon gave the shrillest, as being nearest to the earth.

It may be necessary just to state that the attempt to make Pythagoras a Monotheist is utterly without solid basis, and unworthy of detailed refutation.

His doctrine of the Transmigration of Souls has been regarded as symbolical; with very little reason, or rather with no reason at all. He defined the soul to be a Monad (unit) which was self-moved.[*] Of course the soul, inasmuch as it was a number, was One, i. e. perfect. But all perfection, in as far as it is moved, must pass into imperfection, whence it strives to regain its state of perfection. Imperfection he called a departure from unity; two therefore was accursed.

The soul in man is in a state of comparative imperfection.[†] It has three elements, Reason (*νοῦς*), Intelligence (*φρήν*), and Passion (*θυμός*): the two last man has in common with brutes; the first is his distinguishing characteristic. It has hence been concluded that Pythagoras could not have maintained the doctrine of transmigration, his distinguishing man from brutes being a refutation of those who charge him with the doctrine.[‡] The objection is plausible, and points out a contradiction; but there is abundant evidence for the belief that transmigration was taught.[§] The soul, being a self-moved monad, is One, whether it connect itself with two or with three; in other words the essence remains the same whatever its manifestations. The One soul may have two aspects, Intelligence and Passion, as in brutes; or it may have the three aspects, as in man. Each of these aspects may predominate, and the man will then become eminently rational, or able, or sensual. He will be a philosopher, a man of the world, or a beast. Hence the importance of the

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[*] ARISTOT., *De Animâ*, i. 2.

[†] Thus Aristotle expresses himself when he says that the Pythagoreans maintained the soul and intelligence to be a certain combination of numbers, τὸ δὲ τοιονδὶ (*sc.* τῶν ἀριθμῶν πᾶθος) ψυχὴ καὶ νοῦς.—*Metaph.*, i. 5.

[‡] PIERRE LEROUX, *De l'Humanité*, i. 390–426.

[§] PLATO distinctly mentions the transmigration into beasts.—*Phædrus*, p. 45. And the Pythagorean Timæus, in his statement of the doctrine, also expressly includes beasts.—*Timæus*, p. 45.

Pythagorean initiation, and of the studies of Mathematics and Music.

'This soul, which can look before and after, can shrink and shrivel itself into an incapacity of contemplating aught but the present moment. Of what depths of degeneracy it is capable! What a beast it may become! And if something lower than itself, why not something higher? And if something higher and lower, may there not be a law accurately determining its elevation and descent? Each soul has its peculiar evil tastes, bringing it to the likeness of different creatures beneath itself; why may it not be under the necessity of abiding in the condition of that thing to which it had adapted and reduced itself?'*

In closing this account of a very imperfectly-known doctrine, we have only further to exhibit its relation to the preceding philosophy. It is clearly an offshoot of Anaximander's doctrine, which it developes in a logical manner. In Anaximander there remained a trace of concrete physical inquiry; in Pythagoras inquiry is purely mathematical. Assuming that Number is the real invariable essence of the world, it was a natural deduction that the world is regulated by numerical proportions; and from this all the rest of his system followed as a consequence. Anaximander's system is but a rude and daring sketch of a doctrine which the great mathematical genius of Pythagoras developed. The Infinite of Anaximander became the One of Pythagoras. Observe that in neither of these systems is Mind an attribute of the Infinite. It has been frequently maintained that Pythagoras taught the doctrine of a 'soul of the world.' But there is no solid ground for the opinion, any more than for that of his Theism, which later writers anxiously attributed to him. The conception of an Infinite Mind is much later than Pythagoras. He only regarded Mind as a phenomenon; as the peculiar manifestation of an essential number: and the proof of this assertion we take to lie in his very doctrine of the soul. If the Monad, which is self-moved, can pass into

* MAURICE, *Moral and Metaphysical Philosophy.*

the state of a brute or of a plant, in which state it successively loses its Reason (νοῦς) and its Intelligence (φρήν) to become merely sensual and concupiscible, does not this abdication of Reason and Intelligence distinctly prove them to be only variable manifestations (phenomena) of the invariable Essence? Assuredly; and those who argue for the Soul of the World as an Intelligence in the Pythagorean doctrine, must renounce both the doctrine of transmigration and the central doctrine of the system, the invariable Number as the Essence of things.

Pythagoras represents the second epoch of the second Branch of Ionian Philosophy; he is parallel with Anaximenes.

Translations from the 5th Chapter of Book I. of Aristotle's Metaphysics.

'In the age of these philosophers [the Eleats and Atomists], and even before them, lived those called Pythagoreans, who at first applied themselves to mathematics, a science they improved; and, having been trained exclusively in it, they fancied that the principles of mathematics were the principles of all things.

'Since numbers are by nature *prior* to all things, in Numbers they thought they perceived greater analogies with that which exists and that which is produced (ὁμοιώματα πολλὰ τοῖς οὖσι καὶ γιγνομένοις) than in fire, earth, or water. So that a certain combination of Numbers was justice; and a certain other combination of Numbers was Reason and Intelligence; and a certain other combination of Numbers was opportunity (καιρός); and so of the rest.

'Moreover they saw in Numbers the combinations of harmony. Since therefore all things seemed formed similarly to Numbers, and Numbers being by nature anterior to things, they concluded that the elements (στοιχεῖα) of Numbers are the elements of things, and that the whole heaven is a harmony and a Number. Having indicated the great analogies between Numbers and the phenomena of heaven and its parts, and with the phenomena of the whole world (τὴν ὅλην διακόσμησιν) they formed a system; and if any gap was apparent in the system, they used every effort to restore the connection. Thus, since Ten appeared to them a perfect number, potentially containing all numbers, they declared that the moving celestial bodies (τὰ φερόμενα κατὰ τὸν οὐρανόν) were ten in number; but because only nine are visible they imagined (ποιοῦσι) a tenth, the *Antichthone.*

'We have treated of all these things more in detail elsewhere. But the reason why we recur to them is this—that we may learn from *these* philosophers also what they lay down as their first principles, and by what process they hit upon the causes aforesaid.

'They maintained that Number was the Beginning (Principle, ἀρχή) of things, the cause of their material existence, and of their modifications and different states. The elements (στοιχεῖα) of Number are Odd and Even. The Odd is finite, the Even Infinite. Unity, the One, partakes of both these, and is both Odd and Even. All number is derived from the One. The heavens, as we said before, are composed of numbers. Other Pythagoreans say there are ten Principia, those called co-ordinates:—

The finite and the infinite.
The odd and the even.
The one and the many.
The right and the left.
The male and the female.
The quiescent and the moving.
The right line and the curve.
Light and darkness.
Good and evil.
The square and the oblong.

'. . . All the Pythagoreans considered the elements as material; for the elements are in all things, and constitute the world. . . .

'. . . The finite, the infinite, and the One they maintained to be not separate existences, such as are fire, water, etc.; but the abstract Infinite and the abstract One are respectively the substance of the things of which they are predicated, and hence, too, Number is the substance of all things (*αὐτὸ τὸ ἄπειρον, καὶ αὐτὸ τὸ ἕν, οὐσίαν εἶναι τούτου*). They began by attending only to the *Form*, and began to define it; but on this subject they were very imperfect. They define superficially; and that which suited their definition they declared to be the essence (*causa materialis*) of the thing defined; as if one should maintain that the double and the number two are the same thing, because the double is first found in the two. But two and the double are not equal (in essence), or if so, then the one would be many; a consequence which follows from their (the Pythagorean) doctrine.'

(*Here also a passage from the 7th Chapter of the same Book.*)

'The Pythagoreans employ the Principia and Elements more strangely than even the Physiologists; the cause of which is that they do not take them from sensible things (*αὐτὰς οὐκ ἐξ αἰσθητῶν*). However all their researches are physical; all their systems are physical. They explain the production of heaven, and observe that which takes place in its various parts, and its revolutions; and thus they employ their Principles and Causes, as if they agreed with the Physiologists, that whatever *is* is *material* (*αἰσθητόν*), and is that which contains what we call heaven.

'But their Causes and Principles we should pronounce sufficient (*ἱκανάς*) to raise them up to the conception of Intelligible things—of things above sense (*ἐπαναβῆναι καὶ ἐπὶ τὰ ἀνωτέρω τῶν ὄντων*); and would accord with such a conception much better than with that of physical things.'

This criticism of Aristotle's is a refutation of those who see in Pythagoras the traces of symbolical doctrine. Aristotle sees how much more rational the doctrine would have been had it been symbolical; but this very remark proves that it was not so.

CHAPTER III.

THE ELEATICS.

§ I. XENOPHANES.

THE contradictory statements which so long obscured the question of the date of Xenophanes' birth, may now be said to be satisfactorily cleared up. M. Victor Cousin's essay on the subject will leave few readers unconvinced.* We may assert therefore with some probability, that Xenophanes was born in the 40th Olympiad (B. C. 620-616), and that he lived nearly a hundred years. His birth-place was Colophon, an Ionian city of Asia Minor; a city long famous as the seat of elegiac and gnomic poetry; the poet Mimnermus was among its celebrated men. Xenophanes cultivated poetry from youth upwards; it was the joy of his youth, the consolation of his manhood, and support of his old-age. Banished from his native city, he wandered over Sicily as a Rhapsodist;† a profession he exercised apparently till his death, though, if we are to credit Plutarch, with very little pecuniary benefit. He lived poor, and died poor. But he could dispense with riches, having within him treasures inexhaustible: his soul was absorbed in the contemplation of grand ideas, and his vocation was the poetical expression of those ideas. He had no pity for the idle and luxurious superstitions of his time; he had no tolerance for the sunny legends of Homer, defaced as they were by the errors of polytheism.

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* COUSIN: *Nouveaux Fragmens Philosophiques.* See also KARSTEN: *Xenophanis Carminum Reliquiæ.*

† The Rhapsodists were the Minstrels of antiquity. They learned poems by heart, and recited them to assembled crowds on the occasions of feasts. Homer was a rhapsodist, and rhapsodised his own verses.

He, a poet, was fierce in the combat he perpetually waged with the first of poets: not from petty envy; not from petty ignorance; but from the deep sincerity and enthusiasm of reverence. He who believed in one God, supreme in power, goodness, and intelligence, could not witness without pain the degradation of the Divine in the common religion. Alive to the poetic beauty of the Homeric fables, he was also keenly alive to their religious falsehood. Plato, whom none will accuse of wanting poetical taste, had the same feeling. The latter portion of the second and the beginning of the third books of Plato's *Republic* are but expansions of these verses of Xenophanes:—

> Such things of the Gods are related by Homer and Hesiod
> As would be shame and abiding disgrace to any of mankind;
> Promises broken, and thefts, and the one deceiving the other.

He who firmly believed in

> One God, of all beings divine and human the greatest,
> Neither in body alike unto mortals, neither in spirit,*

could not but see, 'more in sorrow than in anger,' the gross anthropomorphism of his fellows:—

> But men foolishly think that Gods are born like as men are,
> And have too a dress like their own, and their voice and their figure:
> But if oxen and lions had hands like ours, and fingers,
> Then would horses like unto horses, and oxen to oxen,
> Paint and fashion their god forms, and give to them bodies
> Of like shape to their own, as they themselves too are fashioned.†

In confirmation of which satire he referred to the Ethiopians, who represent their gods with flat noses and black complexions; while the Thracians give them blue eyes and ruddy complexions.

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* This is too important a position to admit of our passing over the original:—

> Εἷς θεὸς ἔν τε θεοῖσι καὶ ἀνθρώποισι μέγιστος,
> Οὔτε δέμας θνητοῖσιν ὁμοίϊος οὔτε νόημα.—*Fragm.* i., ed. KARSTEN.

WIGGERS, in his *Life of Socrates*, expresses his surprise that Xenophanes was allowed to speak so freely respecting the State Religion in Magna Græcia, when philosophical opinions much less connected with religion had proved so fatal to Anaxagoras in Athens. But the apparent contradiction is perhaps reconciled when we remember that Xenophanes was a poet, and poets have in all ages been somewhat privileged persons.

† Fragments v. and vi. are here united, as in Ritter; the sense seems to demand this conjunction. But Clemens Alexandrinus quotes the second Fragment as if it occurred in another part of the poem; introducing it with καὶ πάλιν φησὶ, 'and again he says.'—KARSTEN, p. 41.

Having attained a clear recognition of the unity and perfection of the Godhead, it became the object of his life to spread that conviction abroad, and to tear down the thick veil of superstition which hid the august countenance of truth. He looked around him, and saw mankind divided into two classes: those who speculated on the nature of things, endeavouring to raise themselves up to a recognition of the Divine; and those who yielded an easy unreflecting assent to the superstitions which composed religion. The first class kept their speculations to themselves, and to a small circle of disciples. If they sought truth, it was not to communicate it to all minds; they did not work for humanity, but for the few. Even Pythagoras, earnest thinker as he was, could not be made to believe in the fitness of the multitude for truth. He had two doctrines to teach: one for a few disciples, whom he chose with extreme caution; the other for those who pleased to listen. The former doctrine was what he believed the truth; the latter was what he thought the masses were fitted to receive. Xenophanes recognised no such distinction. Truth was for all men; to all men he endeavoured to present it; and for three-quarters of a century he, the great rhapsodist of Truth, emulated his countryman Homer, the great rhapsodist of Beauty, and wandered into many lands, uttering the thought which was working in him. What a contrast is presented by these two Ionian singers! contrast in purpose, in means, and in fate. The rhapsodies of the philosopher, once so eagerly listened to and affectionately preserved in traditionary fragments, are now only extant in briefest extracts contained in ancient books, so ancient and so uninteresting as to be visited only by some rare scholars and a few *dilettanti* spiders; while the rhapsodies of the blind singer are living in the brain and heart of thousands and thousands, who go back to them as the fountain-source of poetry, the crystal mirror of an antique world.

The world presented itself to Homer in pictures, to Xenophanes in problems. The one saw Nature, enjoyed it, and painted it. The other also saw Nature, but questioned it, and wrestled with it. Every trait in Homer is sunny clear; in Xenophanes there is indecision, confusion. In Homer there is a resonance of gladness, a sense of manifold life, activity, and enjoyment. In Xenophanes there is bitterness, activity of a spasmodic sort, infinite doubt, and infinite sadness. The one was a poet singing as the bird sings, carolling for very exuberance of life; the other was a thinker, and a fanatic. He did not sing, he recited:

> Ah! how unlike
> To that large utterance of the early Gods!

That the earnest philosopher should have opposed the sunny poet, opposed him even with bitterness, on account of the degraded actions and motives which he attributed to the Gods, is natural; but we must distinguish between this opposition and satire. Xenophanes was bitter, not satirical. The statement derived from Diogenes, that he wrote satires against Homer and Hesiod, is erroneous.*

Rhapsodising philosophy, and availing himself, for that purpose, of all that philosophers had discovered, he wandered from place to place, and at last came to Elea, where he settled. Hegel questions this statement: he says he finds no distinct mention of such a fact in any of the ancient writers; on the contrary, Strabo, in his sixth book, when describing Elea, speaks of Parmenides and Zeno as having lived there, but is silent respecting Xenophanes; which Hegel holds to be suspicious. Indeed the words of Diogenes Laertius are vague. He says, 'Xenophanes wrote two thousand verses on the foundation of Colophon, and on a colony sent to Elea.' This by no means implies that he lived there. Nevertheless modern writers, from the various connections with the Eleatics observable in his fragments, maintain that he must actually have resided there. Be that as it may, Xenophanes terminated a long and active life without having solved the great problem. The indecision of his acute mind sowed the seeds of that scepticism which was hereafter to play so large a part in philosophy. All his knowledge enabled him only to know how little he knew. His state of mind is finely described by Timon the sillograph, who puts into the mouth of Xenophanes these words:—

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* Γέγραφε δὲ καὶ ἐν ἔπεσιν, καὶ ἐλεγείας, καὶ ἰάμβους κατὰ Ἡσιόδου καὶ Ὁμήρου. Here, says M. Cousin, the word ἰάμβους is either an interpolation of a copyist, as Feurlin and Rossi conjecture, or else it is a mis-statement by Diogenes. There is not a single iambic verse of his remaining. But in his hexameters he opposes Homer and Hesiod, as we have seen.

> Oh that mine were the deep mind, prudent and looking to both sides!
> Long, alas! have I strayed on the road of error, beguiled,
> And am, now, hoary of years, yet exposed to doubt and distraction
> Manifold, all-perplexing, for whithersoever I turn me
> I am lost in the *One and All.*—(εἰς ἓν ταὐτό τε πᾶν ἀνελύετο.) *

It now remains for us to state some of the conclusions at which this great man arrived. They will not, perhaps, answer to the reader's expectation; the reputation for extraordinary wisdom seems ill justified by the fragments of that wisdom which have descended to us. But although to modern philosophy the conclusions of early thinkers may appear trivial, let us never forget that it is to these early thinkers that we owe our modern philosophy. Had there not been many a

> Grey spirit yearning in desire
> To follow knowledge, like a sinking star,
> Beyond the utmost bound of human thought,

we should not have been able to travel on the secure terrestrial path of slow inductive science. The impossible has to be proved impossible, before men will consent to limit their endeavours to the compassing of the possible. And it was the cry of despair which escaped from Xenophanes, the cry that nothing can be certainly known, which first called men's attention to the nothingness of knowledge, as knowledge was then conceived. Xenophanes opens a series of thinkers, which attained its climax in Pyrrho. That he should thus have been at the head of the monotheists, and at the head of the sceptics, is sufficient to entitle his speculations to an extended consideration here.

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* Preserved by SEXTUS EMPIRICUS: *Hypot. Pyrrhon.* i. 224; and quoted by RITTER, i. 443.

§ II. The Philosophy of Xenophanes.

The great problem of existence had early presented itself to his mind; and the resolution of that problem by Thales and Pythagoras had left him unsatisfied. Neither the physical nor the mathematical explanation could still the doubts which rose within him. On all sides he was oppressed with mysteries, which these doctrines could not penetrate. The state of his mind is graphically painted in that one phrase of Aristotle's: 'Casting his eyes upwards at the immensity of heaven, he declared that The One is God.' Overarching him was the deep blue, infinite vault, immovable, unchangeable, embracing him and all things; *that* he proclaimed to be God. As Thales had gazed abroad upon the sea, and felt that he was resting on its infinite bosom, so Xenophanes gazed above him at the sky, and felt that he was encompassed by it. Moreover it was a great mystery, inviting yet defying scrutiny. The sun and moon whirled to and fro through it; the stars were

> Pinnacled dim in its intense inane.

The earth was constantly aspiring to it in the shape of vapour; the souls of men were perpetually aspiring to it with vague yearnings. It was the centre of all existence; it was Existence itself. It was The One—the Immovable, on whose bosom the Many were moved.

Is not this the explanation of that opinion universally attributed to him, but always variously interpreted, 'God is a sphere'? The Heaven encompassing him and all things, was it not The One Sphere which he proclaimed to be God?

It is very true that this explanation does not exactly accord with his physics, especially with that part which relates to the earth being a flat surface whose inferior regions are infinite—by which he explained the fixity of the earth. M. Cousin, in consequence of this discrepancy, would interpret the phrase as metaphorical. 'The epithet *spherical* is simply a Greek locution to indicate the perfect equality and absolute unity of God, and of which a sphere may be an image. The *σφαιρικός* of the Greeks is the *rotundus* of the Latins. It is a metaphorical expression such as that of *square*, meaning *perfect;* an expression which, though now become trivial, had at the birth of mathematical science something noble and elevated in it, and is found in most elevated compositions of poetry. Simonides speaks of a "man square as to his feet, his hands, and his mind," meaning an accomplished man; and the metaphor is also used by Aristotle. It is not therefore surprising that Xenophanes, a poet as well as a philosopher, writing in verse, and incapable of finding the metaphysical expression which answered to his ideas, should have borrowed from the language of imagination the expression which would best render his idea.'

We should be tempted to adopt this explanation could we be satisfied that the Physics of Xenophanes were precisely what it is said they were, or that they were such at the epoch in which he maintained the sphericity of God. This latter difficulty is insuperable, but has been unobserved by all critics. A man who lives a hundred years necessarily changes his opinions on such subjects; and when opinions are so lightly grounded as were those of philosophers at that epoch, it is but natural to admit that the changes may have been frequent and abrupt. In this special instance, scholars have been aware of the very great and irreconcilable contradictions existing between certain opinions equally authentic; showing him to have been decidedly Physical in one department, and as decidedly Mathematical in another.

As to the case in point, Aristotle's express statement of Xenophanes having 'looked up at heaven, and pronounced The One to be God,' is manifestly at variance with any belief in the infinity of the lower regions of the earth. The One must be the Infinite.

To return, however, to his Monotheism, or more properly Pantheism, which is the greatest peculiarity of his doctrine: he not only destroyed the notion of a multiplicity of Gods, but he proclaimed the Self-existence and Intelligence of The One.

God must be Self-existent; for to conceive Being as incipient is impossible. Nothing can be produced from Nothing. Whence, therefore, was Being produced? From itself? No; for then it must have been already in existence to produce itself, otherwise it would have been produced from nothing. Hence the primary law: Being is self-existent. If self-existent, consequently eternal.

As in this it is implied that God is all-powerful and all-wise and all-existent, a multiplicity of Gods is inconceivable.

It also follows that God is immovable, when considered as The All:—

> Wholly unmoved and unmoving it ever remains in the same place,
> Without change in its place when at times it changes appearance.

The All must be unmoved; there is nothing to move it. It cannot move itself; for to do so it must be external to itself.

We must not suppose that he denied motion to finite things because he denied it to the Infinite. He only maintained that The All was unmoved. Finite things were moved by God: 'without labour he ruleth all things by reason and insight.' His monotheism was carefully distinguished from anthropomorphism, as the verses previously quoted have already exemplified. Let us only further remark on the passage in Diogenes Laertius, wherein he is said to have maintained that 'God did not resemble man, for he heard and saw all things without *respiration*.' This is manifestly an allusion to the doctrine of Anaximenes that the soul was air. The intelligence of God, being utterly unlike that of man, is said to be independent of respiration.*

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* Only by thus connecting one doctrine with another can we hope to understand ancient philosophy. It is in vain that we puzzle ourselves with the attempt to penetrate the meaning of these antique fragments of thought unless we view them in relation to the opinions of their epoch.

It is necessary to caution the reader against the supposition that by the One God Xenophanes meant a Personal God distinct from the universe. He was a monotheist in contradistinction to his polytheistical contemporaries; but his monotheism was pantheism. Indeed this point would never have been doubted, notwithstanding the ambiguity of language, if moderns had steadily kept before their minds the conceptions held by the Greeks of their Gods as personifications of the Powers of Nature. When Xenophanes argued against the polytheism of his contemporaries, he argued against their personifying as distinct deities the various aspects of The One; he was wroth with their degradation of the divine nature by assimilating it to human nature, by making these powers *persons*, and independent existences—conceptions irreconcilable with that of the unity of God. He was a monotheist therefore, but his monotheism was pantheism; he could not separate God from the world, which was merely the manifestation of God; He could not conceive God as the One Existent, and admit the existence of a world *not* God. There could be but One Existence with many modes; that one was God.

There is another tenet of almost equal importance in his system, and one which marks the origin of that sceptical philosophy which we shall see henceforward running through all the evolutions of this history, always determining a crisis in speculation. Up to the time of Xenophanes philosophy was unsuspectingly dogmatical; it never afterwards recovered that simple position. He it was who began to doubt, and to confess the incompetence of Reason to solve doubts and compass the exalted aims of philosophy. Yet the doubt was moral rather than psychological. It was no systematic scepticism: an earnest spirit struggling after Truth, whenever he obtained, or thought he obtained, a glimpse of her celestial countenance he proclaimed his discovery, however it might contradict what he had before announced. Long travel, various experience, examination of different systems, new and contradictory glimpses of the problem he was desirous of solving—these working together produced in his mind a scepticism of a noble, somewhat touching sort, wholly unlike that of his successors. It was the combat of contradictory opinions in his mind, rather than disdain of knowledge. His faith was steady, his opinions vacillating. He had a profound conviction of the existence of an eternal, all-wise, infinite Being; but this belief he was unable to reduce to a consistent formula. There is deep sadness in these verses:—

Surely never hath been, nor ever shall be a mortal
Knowing both well the Gods and the All, whose nature we treat of;
For when by chance he at times may utter the true and the perfect,
He wists not unconscious; *for error is spread over all things.*

In vain M. Cousin attempts to prove that these verses are not sceptical; many of the recorded opinions of Xenophanes are of the same tendency. The man who had lived to find his most cherished convictions turn out errors, might well be sceptical of the truth of any of his opinions. But this scepticism was vague; it did not prevent his proclaiming what he held to be the truth; it did not prevent his search after truth.

For although Truth could never be compassed in its totality by man, glimpses could be caught. Ἀλλὰ χρόνῳ ζητοῦντες ἐφευρίσκουσιν ἄμεινον: we cannot indeed be certain that our knowledge is absolute; we can only strive our utmost, and believe our opinions to be probable. This is not scientific scepticism; it does not ground itself on an investigation of the nature of Intelligence and the sources of our knowledge: it grounds itself solely on the perplexities into which philosophy is thrown. Thus reason (i. e. the logic of his day) taught him that God the Infinite could not be infinite, neither could he be finite. Not infinite, because non-being alone, as having neither beginning, middle, nor end, is unlimited (infinite). Not finite, because one thing can only be limited by another, and God is one, not many.

In like manner did logic teach him that God was neither moved nor unmoved. Not moved, because one thing can only be moved by another, and God is one, not many; not unmoved, because non-being alone is unmoved, inasmuch as it neither goes to another, nor does another come to it.

With such verbal quibbles as these did this great thinker darken his conception of the Deity. They were not quibbles to him; they were the real conclusions involved in the premises from which he reasoned. To have doubted their validity would have been to doubt the possibility of philosophy. He was not quite prepared for that; and Aristotle in consequence calls him 'somewhat clownish,' ἀγροικότερος (*Met.* i. 5); meaning that his conceptions were rude and undigested, instead of being systematised.

Although in the indecision of Xenophanes we see the germs of later scepticism, we are disposed to agree with M. Cousin in discrediting his absolute scepticism—resting on the incomprehensibility of all things—ἀκαταληψία πάντων. Nevertheless some of M. Cousin's grounds appear to us questionable.*

The reader will, perhaps, have gathered from the foregoing, that Xenophanes was too much in earnest to believe in the incomprehensibility of all things, however the contradictions of his logic might cause him to suspect his own and other people's conclusions. Of course, if carried out to their legitimate consequences, his principles lead to absolute scepticism; but he did not so carry them out, and we have no right to charge him with consequences which he himself did not draw. Indeed, it is one of the greatest and commonest of polemical errors, to charge the originator or supporter of a doctrine with consequences which he did not see, or would not have accepted had he seen them. Because they may be contained in his principles, it by no means follows that he saw them. A man would be ridiculed if he attributed to the discoverer of any law of nature the various discoveries which the application of that law might have produced; nevertheless these applications were all potentially existing in the law; but as the discoverer of the law was not aware of them, he does not get the credit. Why, then, should a man have the *dis*-credit of consequences contained, indeed, in his principles, but which he himself could not see? On the whole, although Xenophanes was not a clear and systematic thinker, it cannot be denied that he exercised a very remarkable influence on the progress of speculation; as we shall see in his successors.

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* E.g. he says: 'It appears that Sotion, according to Diogenes, attributed to Xenophanes the opinion, all things are incomprehensible; but Diogenes adds that Sotion was wrong on that point.' (*Fragmens*, p. 89.) Now this is altogether a mis-statement. Diogenes says: 'Sotion pretends that *no one before Xenophanes* maintained the incomprehensibility of all things, but he is wrong.' Diogenes here does not deny that Xenophanes held the opinion, but that any one held it before him.

§ III. Parmenides.

The readers of Plato will not forget the remarkable dialogue in which he pays a tribute to the dialectical subtlety of Parmenides; but we must at the outset caution them against any belief in the genuineness of the opinions attributed to him by Plato. If Plato could reconcile himself to the propriety of altering the sentiments of his beloved master, Socrates, and of attributing to him such as he had never entertained; with far greater reason could he put into the mouth of one long dead, sentiments which were the invention of his own dramatic genius. Let us read the *Parmenides*, therefore, with extreme caution; let us prefer the authority of Aristotle and the verses of Parmenides which have been preserved.

Parmenides was born at Elea, somewhere about the 61st Olympiad (B.C. 536). This date does not contradict the rumour which, according to Aristotle, asserted him to have been a disciple of Xenophanes, whom he might have listened to when that great rhapsodist was far advanced in years. The most positive statement, however, is that by Sotion, of his having been taught by Ameinias and Diochœtes the Pythagorean. But both may be true.

Born to wealth and splendour, enjoying the esteem and envy which always follow splendour and talents, it is conjectured that his early career was that of a dissipated voluptuary; but Diochœtes taught him the nothingness of wealth (at times, perhaps, when satiety had taught him the nothingness of enjoyment), and led him from the dull monotony of noisy revelry to the endless variety and excitement of philosophic thought. He forsook the feverish pursuit of enjoyment, to contemplate 'the bright countenance of Truth, in the quiet and still air of delightful studies.'* But this devotion to study was no selfish seclusion. It did not prevent his taking an active share in the political affairs of his native city. On the contrary, the fruits of his study were shown in a code of laws which he drew up, and which were deemed so wise and salutary, that the citizens at first yearly renewed their oath to abide by the laws of Parmenides.

> And something greater did his worth obtain,
> For fearless virtue bringeth boundless gain.

The first characteristic of his philosophy, is the decided distinction between Truth and Opinion: in other words, between the ideas obtained through the Reason, and those obtained through Sense. In Xenophanes we noticed a vague glimmering of this notion; in Parmenides it attained to something like clearness. In Xenophanes it contrived to throw an uncertainty over all things; which, in a logical thinker, would have become absolute scepticism. But he was saved from scepticism by his moral earnestness. Parmenides was saved from it by his philosophy. He was perfectly aware of the deceitful nature of opinion; but he was also aware that within him there were certain ineradicable convictions, in which, like Xenophanes, he had perfect faith, but which he wished to explain by reason. Thus was he led in some sort to anticipate the celebrated doctrine of *innate ideas.* These ideas were concerning necessary truths; they were true knowledge; all other ideas were uncertain.

The Eleatics, as Ritter remarks, believed that they recognised and could demonstrate that the truth of all things is one and unchangeable; perceiving, however, that human thought is constrained to follow the appearance of things, and to apprehend the changeable and the many, they were forced to confess that we are unable fully to comprehend the divine truth in its reality, although we may rightly apprehend a few general principles. Nevertheless, to suppose, in conformity with human thought, that there is actually both a plurality and a change, would be but a delusion of the senses. While, on the other hand, we must acknowledge, that in all that appears to us as manifold and changeable, including all particular thought as evolved in the mind, the Godlike is present, unperceived indeed by human blindness, and become, as it were beneath a veil, indistinguishable.

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* Milton.

We may make this conception more intelligible if we recall the mathematical tendency of the whole of this school. The knowledge of Physics was regarded as contingent—delusive. The knowledge of Mathematics eternal—self-evident. Parmenides was thus led by Xenophanes on the one hand, and Diochœtes on the other, to the conviction of the duality of human thought. His Reason, i. e. the Pythagorean logic, taught him that there is nought existing but The One (which he did not, with Xenophanes, call God; he called it Being). His Sense, on the other hand, taught him, that there were Many Things, because of his manifold sensuous impressions. Hence he maintained two Causes and two Principles: the one to satisfy the Reason; the other to accord with the explanations of Sense. His work on 'Nature' was therefore divided into two parts: in the first is expounded the absolute Truth, as Reason proclaims it; in the second, human Opinion, accustomed to

> Follow the rash eye, and ears with singing sounds confused, and tongue,

which is but a mere *seeming* (*δόξα*, appearance); nevertheless there is a cause of this seeming; there is also a principle, consequently there is a doctrine appropriate to it.

It must not be imagined, that Parmenides had a mere vague and general notion of the uncertainty of human knowledge. He maintained that thought was delusive because dependent upon organisation. He had as distinct a conception of this celebrated theory as any of his successors; this may be seen in the passage preserved by Aristotle in the 5th chapter of the 4th book of his *Metaphysics*, where, speaking of the materialism of Democritus, in whose system sensation was thought, he adds, that others have shared this opinion, and proceeds thus: ‘Empedocles affirms, that a change in our condition (τὴν ἕξιν) causes a change in our thought.

> Thought grows in men according to the impression of the moment; *

and, in another passage, he says:—

> It is always according to the changes which take place in men
> That there is change in their thoughts.

Parmenides expresses himself in the same style:

> Such as to each man is the nature of his many-jointed limbs,
> Such also is the intelligence of each man; for it is
> The nature of limbs (organization) which thinketh in men.
> Both in one and in all; the highest degree of organization gives the highest degree of thought.†

Now, as thought was dependent on organisation, and as each organisation differed in degree from every other, so

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* Πρὸς παρεὸν γὰρ μῆτις ἀέξεται ἀνθρώποισι.

† The last sentence, ‘the highest degree of organization gives the highest degree of thought,’ is a translation for which, differing from that of every other I have seen, and being, as I believe, of some importance in the interpretation of Parmenides' system, it is necessary to state my reasons. Here is the original of the verses in the text:—

> Ὡς γὰρ ἕκαστος ἔχει κρᾶσιν μελέων πολυκάμπτων,
> Τῶς νόος ἀνθρώποισι παρέστηκεν. Τὸ γὰρ αὐτὸ
> Ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισι,
> Καὶ πᾶσιν, καὶ παντί· τὸ γὰρ πλέον ἐστὶ νόημα.

The last sentence RITTER translates:—

> For thought is the fulness.

Objecting to HEGEL's version of τὸ πλέον, ‘the most,’ and to that of BRANDIS ‘the mightier,’ Ritter says the meaning is ‘the full.’ But we shall then want an interpretation of ‘the full.’ What is it? He elsewhere slightly alters the phrase thus:—

> ‘The fulness of all being is thought.’

I speak with submission, but it appears to me that Ritter's assertion respecting τὸ πλέον meaning ‘the full,’ or ‘the fulness,’ is unwarrantable. The ordinary would the opinions of men differ. If thought be sensation, we require but little reflection to see, that, as sensations from the same object differ according to the senses of different persons, and indeed differ at different times with the same person, therefore one opinion is not more true than another, and all are equally false. But Reason is the same in all men: that alone is the fountain of certain knowledge. All thought derived from sense is but a *seeming* (*δόξα*); but thought derived from Reason is absolutely true. Hence his antithesis to *δόξα* is always *πίστις*, *faith.*

This is the central point in his system. He was thereby enabled to avert absolute scepticism, and at the same time to admit the uncertainty of ordinary knowledge. He had therefore two distinct doctrines, each proportioned to the faculty adapted to it. One doctrine, of Absolute Knowledge (Metaphysics, *μετὰ τὰ φυσικά*), with which the faculty of pure Reason was concerned, a doctrine called in the language of that day, the 'Science of Being.' The other doctrine, of Relative Knowledge, or Opinion (Physics, *τὰ φυσικά*), with

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meaning is certainly 'the more,' or 'the most,' and hence used occasionally to signify *perfection*, as in Theocritus:—

> *Καὶ τᾶς βωκολικᾶς ἐπὶ τὸ πλέον ἵκεο μώσας.*—*Idy.* i. 20.

When Parmenides, therefore, uses the phrase *τὸ πλέον ἐστὶ νόημα*, he seems to us to have the ordinary meaning in view; he speaks of *τὸ πλέον* as a necessary consequence of the *πολυκάμπτος.* Man has many-jointed limbs, *ergo* many sensations; if he had more limbs he would have more sensations; the highest degree of organisation gives the highest degree of thought. This explanation is in conformity with what Aristotle says on introducing the passage; is in conformity with the line immediately preceding:—

> *Ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισι;*

is in conformity with the explanation of the scholiast Asclepias, *τὸ πλέον ἐστὶ νόημα, προσγίγνεται ἐκ τῆς πλέονος αἰσθήσεως καὶ ἀκριβεστέρας*; and, finally, is in conformity with the opinion attributed to Parmenides by Plutarch, that 'sentir et penser ne lui paraissaient choses distinctes, ni entre elles ni de l'organisation.'[1]

It is on this account I reject the reading of *πολυπλάγκτων*, 'far-wandering,' in place of *πολυκάμπτων*, 'many-jointed,' suggested by Karsten. The change is arbitrary and for the worse; *πολυπλάγκτων* having reference only to the feet, whereas the simile in Parmenides is meant to apply to the whole man.

The meaning of the verses is, therefore, that the intelligence of man is formed according to his many-jointed frame, i.e. dependent on his organisation.

[1] Ch. Renouvier: *Manuel de la Philosophie Ancienne*, i. 152, who cites Plutarch: *Opin. des Philos.* iv. 5.

which the faculty of Intelligence, or Thought, derived from Sense, was concerned, and which may be called the science of Appearance.

On the science of Being, Parmenides did not differ much from his predecessors, Xenophanes and Pythagoras. He taught that there was but one Being; non-Being was impossible. The latter assertion amounts to saying that non-existence cannot exist: a position which may appear extremely trivial to the reader not versed in metaphysical speculations; but which we would not have him despise, inasmuch as it is a valuable piece of evidence respecting the march of human opinion. It is only one of the many illustrations of the tendency to attribute positive qualities to words, as if they were *things*, and not simply *marks* of things: a tendency admirably exposed by James Mill, and subsequently by his son.[*] It was this tendency which so greatly puzzled the early thinkers, who, when they said that 'a thing *is* not,' believed that they nevertheless predicated existence, viz. the existence of non-existence. A thing *is*; and a thing *is not*; these two assertions seemed to be affirmations of two different states of existence; an error from which, under some shape or other, later thinkers have not always been free.

Parmenides, however, though affirming that Being alone existed, and that non-Being was impossible, did not see the real ground of the sophism. He argued that Non-Being could not be, because Nothing can come out of Nothing (as Xenophanes taught him); if therefore Being existed, it must embrace all existence.

Hence he concluded that The One was all Existence, identical, unique, neither born nor dying, neither moving nor changing. It was a bold step to postulate the finity of The One, Xenophanes having declared it to be necessarily infinite. But there is abundant evidence to prove that Parmenides regarded The One as finite. Aristotle speaks of it as the distinction between Parmenides and Melissus: 'The unity of Parmenides was a *rational* unity (τοῦ κατὰ λόγον ἑνός); that of Melissus was a *material* unity (τοῦ κατὰ τὴν ὕλην). Hence the former said that The One was finite (πεπερασμένον), but the latter said it was infinite (ἄπειρον).' From which it appears that the ancients conceived the Rational unity as limited by itself; a conception it is difficult for us to understand. Probably it was because they held The One to be spherical: all the parts being equal: having neither beginning, middle, nor end: and yet self-limited.

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[*] 'Many volumes might be filled with the frivolous speculations concerning the nature of Being (τὸ ὄν, οὐσία, *Ens*, *Entitas*, *Essentia*, and the like), which have arisen from overlooking this double meaning of the words *to be*; from supposing that when it signifies *to exist*, and when it signifies to *be* some specified thing, as to *be* a man, to *be* Socrates, to *be* seen, to *be* a phantom, or even to *be* a nonentity, it must still at the bottom answer to the same idea; and that a meaning must be found for it which shall suit all these cases.'—JOHN MILL, *System of Logic*, i. 4, *first ed.*

The conception of the identity of thought and existence is expressed in some remarkable verses by Parmenides, of which, as a very different interpretation has been drawn from them, we shall give a literal translation.

> Thought is the same thing as the cause of thought:
> For without the thing in which it is announced
> You cannot find the thought; for there is nothing, nor shall be—
> Except the existing.

Now, as the only Existence was The One, it follows that The One and Thought are identical; a conclusion which by no means contradicts the opinion before noticed of the identity of human thought and sensation, both of these being merely transitory modes of Existence.

Respecting the second or physical doctrine of Parmenides, we may briefly say that, believing it necessary to give a science of Appearances, he sketched out a programme according to the principles reigning in his day. He denied motion as a reality, but admitted that according to appearance there was motion.

Parmenides represents the logical and more rigorous side of the doctrine of Xenophanes, from which the physical element is almost banished by being condemned to the region of uncertain Sense. Although he preserved himself from scepticism, as we saw, nevertheless the tendency of his doctrine was to forward scepticism. In his exposition of the uncertainty of knowledge, he retained a saving clause—that, namely, of the certainty of Reason. It only remained for successors to apply the same scepticism to the ideas of Reason, and Pyrrhonism was complete.

§ IV. ZENO OF ELEA.

Zeno, by Plato called the Palamedes of Elea, must not be confounded with Zeno the Stoic. He was on all accounts one of the most distinguished of the ancient philosophers; as great in his actions as in his works; and remarkable in each for a strong, impetuous, disinterested spirit. Born at Elea about the 70th Olympiad (B.C. 500), he became the pupil of Parmenides, and, as some say, his adopted son.

The first period of his life was spent in the calm solitudes of study. From his beloved friend and master he had learned to appreciate the superiority of intellectual pleasures—the only pleasures that do not satiate. From him also he had learned to despise the splendours of rank and fortune, without becoming misanthropical or egoïstical. He worked for the benefit of his fellow-men, but declined the recompense of rank, or worldly honours, with which they would have repaid their labours. His recompense was the voice of his own heart beating calmly in conscious integrity. The absence of ambition in so intrepid and exalted a mind, might well have been the wonderment of antiquity; for it was no sceptical indifference, no disdain for the opinions of his fellow-men, which made him shun office. He was a delicate no less than an impetuous man, extremely sensitive to praise and blame; as may be seen in his admirable reply to one who asked him why he was so hurt by blame: 'If the blame of my fellow-citizens did not cause me pain, their approbation would not cause me pleasure.' In timid minds, shrinking from the coarse ridicule of fools and knaves, this sensitiveness is fatal; but in those brave spirits who fear nothing but their own consciences, and who accept no approbation but such as their consciences can ratify, this sensitiveness lies at the root of all heroism and noble endeavour. One of those men was Zeno. His life was a battle, but the battle was for Truth; it ended tragically, but it was not fought in vain.

Perhaps of all his moral qualities his patriotism has been the most renowned. He lived at the period of the awakening of liberty, when Greece was everywhere enfranchising herself, everywhere loosening the Persian yoke, and endeavouring to found national institutions on freedom. In the general effervescence and enthusiasm Zeno was not cold. His political activity we have no means of judging; but we learn that it was great and beneficial. Elea was but a small colony; but Zeno preferred it to the magnificence of Athens, the luxurious, restless, quibbling, frivolous, passionate, and unprincipled citizens of which he contrasted with the provincial modesty and honesty of Elea. He did, however, occasionally visit Athens, and there promulgated the doctrines of his master, as we see by the opening of Plato's dialogue, the *Parmenides.* There he taught Pericles.

On the occasion of his last return to Elea, he found it had fallen into the hands of the tyrant Nearchus (or Diomedon, or Demylos: the name is differently given by ancient writers). He conspired against him, failed in his project, and was captured. It was then, as Cicero observes, that he proved the excellence of his master's doctrines, and proved that a courageous soul fears only that which is base, and that fear and pain are for women and children, or men who have feminine hearts. When Nearchus interrogated him as to his accomplices, he threw the tyrant into an agony of doubt and fear by naming all the courtiers: a masterstroke of audacity, and in those days not discreditable. Having thus terrified his accuser, he turned to the spectators, and exclaimed, 'If you can consent to be slaves from fear of what you see me now suffer, I can only wonder at your cowardice.'* The people were so roused that they fell upon Nearchus and slew him.

There are considerable variations in the accounts of this story by ancient writers, but all agree in the main narrative given above. Some say that Zeno was pounded to death in a huge mortar. We have no trustworthy account of his death.

As a philosopher, Zeno's merits are peculiar. He was the inventor of that logic so celebrated as Dialectics. This, which, in the hands of Socrates and Plato, became a powerful weapon of offence, is, by the universal consent of antiquity, ascribed to Zeno. It may be defined as 'A refutation of error by the *reductio ad absurdum* as a means of establishing the truth.' The truth to be established in Zeno's case was the system of Parmenides; we must not, therefore, seek in his arguments for any novelty beyond the mere exercise of dialectical subtlety. He brought nothing new to the system; but he invented a great method of polemical exposition. The system had been conceived by Xenophanes; precision had been given to it by Parmenides; and there only remained for Zeno the task of fighting for and defending it; which task he admirably fulfilled. 'The destiny of Zeno was altogether polemical. Hence, in the external world, the impetuous existence and tragical end of the patriot; and, in the internal world, the world of thought, the laborious character of Dialectician.'†

It was this fighter's destiny which caused him to perfect the art of offence and defence. He very naturally wrote in prose; of which he set the first example: for, as the wild and turbulent enthusiasm of Xenophanes would instinctively express itself in poetry, so would the argumentative subtlety of Zeno naturally express itself in prose. The great rhapsodist wandered from city to city, intent upon earnest and startling enunciation of the mighty thoughts stirring confusedly within him; the great logician was more intent upon a convincing exposition of the futility of the arguments alleged against his system, than upon any propaganda of the system itself; for he held that the truth must be accepted when once error is exposed. 'Antiquity,' says M. Cousin, 'attests that he wrote not poems, like Xenophanes and Parmenides, but treatises, and treatises of an eminently prosaic character: that is to say, refutations.'

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* It is a pity to destroy the story of his having concluded this harangue by biting his tongue off and spitting it in the tyrant's face; but that is one of those epigrams in action which ill withstand criticism.

† COUSIN, *Fragmens Philosophiques*, art. *Zénon d'Elée.*

The reason of this may be easily guessed. Coming as a young man to Athens, to preach the doctrine of Parmenides, he must have been startled at the opposition which that doctrine met with from the subtle, quick-witted, and empirical Athenians, who had already erected the Ionian philosophy into the reigning doctrine. Zeno, no doubt, was at first stunned by the noisy objections which on all sides surrounded him; but, being also one of the keenest of wits, and one of the readiest, he would soon have recovered his balance, and in turn assailed his assailers. Instead of teaching dogmatically, he began to teach dialectically. Instead of resting in the domain of pure science, and expounding the ideas of Reason, he descended upon the ground occupied by his adversaries,—the ground of daily experience and sense-knowledge,—and turning their ridicule upon themselves, forced them to admit that it was more easy to conceive The Many as a produce of The One, than to conceive The One on the assumption of the existing Many.

'The polemical method entirely disconcerted the partisans of the Ionian philosophy,' says M. Cousin, 'and excited a lively curiosity and interest for the doctrines of the Italian (Pythagorean) school; and thus was sown in the capital of Greek civilisation the fruitful germ of a higher development of philosophy.'

Plato has succinctly characterised the difference between Parmenides and Zeno by saying, that the master established the existence of The One, and the disciple proved the non-existence of The Many.

When he argued that there was but One thing really existing, all the others being only modifications or appearances of that One, he did not deny that there were *many appearances*, he only denied that these appearances were real existences. So, in like manner, he denied motion, but not the appearance of motion. Diogenes the Cynic, who to refute his argument against motion rose and walked, entirely mistook the argument; his walking was no more a refutation of Zeno, than Dr. Johnson's kicking a stone was a refutation of Berkeley's denial of matter. Zeno would have answered: Very true: you walk: according to Opinion (τὸ δοξαστόν), you are in motion; but according to Reason you are at rest. What you call motion is but the name given to a series of similar conditions, each of which, separately considered, is rest. Thus, every object filling space equal to its bulk is necessarily at rest in that space; motion from one spot to another is but a name given to the *sum-total* of all these *intermediate spaces* in which *the object at each moment is at rest*. Take the illustration of the circle: a circle is composed of a number of individual points, or straight lines; not one of these lines can individually be called a circle; but all these lines, considered as a totality, have one general name given them, viz. a circle. In the same way, in each individual point of space the object is at rest; the sum-total of a number of these states of rest is called motion.

The original fallacy is in the supposition that Motion is a thing superadded, whereas, as Zeno clearly saw, it is only a *condition*. In a falling stone there is not the 'stone' and a thing called 'motion;' otherwise there would be also another thing called 'rest.' But both motion and rest are names given to express conditions of the stone. Even rest is a positive exertion of force. Rest is force, resisting an equivalent and opposing force; Motion is force triumphant. It follows that matter is always in motion; which amounts to the same as Zeno's saying, there is no such thing as Motion.

The other arguments of Zeno against the possibility of

Motion (and he maintained four, the third of which we have above explained), are given by Aristotle; but they seem more like the ingenious puzzles of dialectical subtlety than the real arguments of an earnest man. It has, therefore, been asserted, that they were only brought forward to ridicule the unskilfulness of his adversaries. We must not, however, be hasty in rescuing Zeno from his own logical net, into which he may have fallen as easily as others. Greater men than he have been the dupes of their own verbal distinctions.

Here are his two first arguments :—

1. Motion is impossible, because before that which is in motion can reach the end, it must reach the middle point; but this middle point then becomes the end, and the same objection applies to it,—since to reach it the object in motion must traverse a middle point; and so on *ad infinitum*, seeing that matter is infinitely divisible. Thus, if a stone be cast four paces, before it can reach the fourth it must reach the second; the second then becomes the end, and the first pace the middle: but before the object can reach the first pace it must reach the half of the first pace, and before the half it must reach the half of that half; and so on *ad infinitum*

2. This is his famous Achilles puzzle. We give both the statement and refutation as we find it in Mill's *Logic* (ii. 453).

The argument is, let Achilles run ten times as fast as a tortoise, yet, if the tortoise has the start, Achilles will never overtake him: for, suppose them to be at first separated by an interval of a thousand feet; when Achilles has run these thousand feet the tortoise will have run a hundred, and when Achilles has run those hundred the tortoise will have got on ten, and so on for ever: therefore Achilles may run for ever without overtaking the tortoise.

Now the 'for ever' in the conclusion means, for any length of time that can be supposed; but in the premisses 'for ever' does not mean any *length* of time—it means any *number of subdivisions of time.* It means that we may divide a thousand feet by ten, and that quotient again by ten, and so on as often as we please; that there never need be an end to the subdivisions of the distance, nor, consequently, to those of the time in which it is performed. But an unlimited number of subdivisions may be made of that which is itself limited. The argument proves no other infinity of duration than may be embraced within five minutes. As long as the five minutes are not expired, what remains of them may be divided by ten, and again by ten, as often as we like, which is perfectly compatible with their being only five minutes altogether. It proves, in short, that to pass through this finite space requires *a time which is infinitely divisible*, but not an *infinite time*; the confounding of which distinction Hobbes had already seen to be the gist of the fallacy.

Although the credit of seeing the ground of the fallacy is given by Mill to Hobbes, we must also observe that Aristotle had clearly seen it in the same light. His answer to Zeno, which Bayle thinks 'pitiable,' was, that a foot of space being only *potentially infinite*, but *actually finite*, it could be easily traversed in a *finite time*.

We cannot here follow Zeno in his various arguments against the existence of a multitude of things. His position may be briefly summed up thus: There is but one Being existing necessarily indivisible and infinite. To suppose that The One is divisible, is to suppose it finite. If divisible, it must be infinitely divisible. But, suppose two things to exist, then there must necessarily be an interval between those two: something separating and limiting them. What is that something? It is some *other* thing. But then, if not the *same* thing, *it also* must be separated and limited; and so on *ad infinitum*. Thus only One thing can exist as the *substratum* for all manifold appearances.

These arguments, as Mr. Grote observes,* are memorable because they are the earliest known manifestations of Grecian dialectic, and are probably equal in acuteness and ingenuity to anything which it ever produced. Their bearing is not always acutely conceived. Most of them are *argumenta ad hominem*: consequences contradictory and inadmissible, but shown to follow legitimately from a given hypothesis, and therefore serving to disprove the hypothesis itself. The result of Zeno's reasoning, implied rather than expressed, is that neither of the contradictory hypotheses is capable of supplying a real basis for the phenomenal world. His purport is mistaken when it is supposed that he wished to delude his hearers by proving both sides of a contradictory proposition. It was to disprove the premises. It was the serious introduction into philosophy of that sceptical negative element which the dogmatists had disregarded. And in this respect it marks the close of an epoch, and the opening movement of a new one.

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* GROTE: *Plato* i. 102.

Zeno closes the second great line of independent inquiry, opened by Anaximander, and continued by Pythagoras, Xenophanes, and Parmenides, which we may characterise as the Mathematical. Its opposition to the Physical or Empirical inquiry was radical and constant. But, up to the coming of Zeno, these two systems had been developed almost in parallel lines, so little influence did they exert upon each other. The two systems clashed together on the arrival of Zeno at Athens. The result of the conflict was the creation of a new method,—Dialectics. This method created the Sophists and the Sceptics. It also greatly influenced all succeeding schools, and may be said to have constituted one great peculiarity of Socrates and Plato, as will be shown.

We must however previously trace the intermediate steps which philosophy took before the crisis of Sophistry which preceded the era of Socrates.

SECOND EPOCH.

The failure of Cosmological speculations directs the efforts of Philosophy to the psychological problems of the origin and limits of Knowledge.

CHAPTER I.

§ I. HERACLITUS.

HORACE WALPOLE'S epigram, 'Life is a comedy to those who think, a tragedy to those who feel,' may be applied to Democritus and Heraclitus, celebrated throughout antiquity as the laughing and the weeping philosophers:

> One pitied, one condemn'd the woful times:
> One laugh'd at follies, and one wept o'er crimes.

Modern criticism has indeed pronounced both these characteristics to be fabulous; but fables themselves are often only exaggerations of truth, and there must have been something in the lives of each of these philosophers which formed the nucleus round which the fables grew. Of Heraclitus it has been well said, 'The vulgar notion of him as the crying philosopher must not be wholly discarded, as if it meant nothing, or had no connection with the history of his speculations. The thoughts which came forth in his system are like fragments torn from his own personal being, and not torn from it without such an effort and violence as must needs have drawn a sigh from the sufferer. If Anaximenes discovered that he had within him a power and principle which ruled over all the acts and functions of his bodily frame, Heraclitus found that there was a life within him which he could not call his own, and yet it was, in the very highest sense, *himself*, so that without it he would have been a poor, helpless, isolated creature;—a universal life, which connected him with his fellow-men,—with the absolute source and original fountain of life.' *

Heraclitus was the son of Blyson, and was born at Ephesus, about the 69th Olympiad (B.C. 503). Of a haughty, melancholy temper, he refused the supreme magistracy which his fellow-citizens offered him; on account of their dissolute morals, according to Diogenes Laertius; but, as he declined the offer in favour of his brother, his rejection was probably grounded on some other reason. Is not his rejection of magistracy in perfect keeping with what else we know of him? For instance: playing with some children near the temple of Diana, he answered those who expressed surprise at seeing him thus occupied, 'Is it not better to play with children, than to share with you the administration of affairs?' The contempt which pierces through this reply, and which subsequently grew into confirmed misanthropy, may have been the result of morbid meditation, rather than of virtuous scorn. Was it because the citizens were corrupt that he refused to exert himself to make them virtuous? Was it because the citizens were corrupt, that he retired to the mountains, and there lived on herbs and roots, like an ascetic? If Ephesus was dissolute, was there not the rest of Greece for him to make a home of? He fled to the mountains, there, in secret, to prey on his own heart. He was a misanthrope, and misanthropy issues more from the morbid consciousness of self, than from the sorrowful opinion formed of others.

In a contemptuous letter he thus declined the courteous invitation of Darius to spend some time at his court.

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* MAURICE, *Moral and Metaphysical Philosophy.*

'Heraclitus of Ephesus to the King Darius, son of Hystaspes, health!

'All men depart from the paths of truth and justice. They have no attachment of any kind but avarice; they only aspire to a vain-glory with the obstinacy of folly. As for me, I know not malice; I am the enemy of no one. I utterly despise the vanity of courts, and never will place my foot on Persian ground. Content with little, I live as I please.'

The Philosophy of Heraclitus was delivered in such enigmatical terms, that he was called 'the Obscure.' A few fragments have been handed down to us.* From these it would be vain to hope that a consistent system could be evolved; but from them, and from other sources, we may gather the general tendency of his doctrines.

The tradition which assigns him Xenophanes as a teacher, is borne out by the evident relation of their systems. Heraclitus is somewhat more Ionian than Xenophanes: that is to say, in him the physical explanation of the universe is more prominent. At the same time, Heraclitus is neither frankly Ionian nor Italian; he wavers between the two. The pupil of Xenophanes would naturally regard human knowledge as a mist of error, through which the sunlight only gleamed at intervals. But the inheritor of the Ionian doctrines would not adopt the conclusion of the Mathematical school, namely, that the cause of this uncertainty of knowledge is the uncertainty of sensuous impressions; and that consequently Reason is the only fountain of truth. He maintained that the senses are the sources of all true knowledge, for they drink in the universal intelligence. The senses deceive only when they belong to barbarian souls: in other words, the ill-educated sense gives false impressions, the rightly-educated sense gives truth. Whatever is common is true; whatever is remote from the common, i. e. the exceptional, is false. The

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* SCHLEIERMACHER has collected, and endeavoured to interpret them, in WOLF and BUTTMANN'S *Museum der Alterthumswissenschaften*, vol. i. part iii.

True is the Unhidden.* Those whose senses are open to receive the Unhidden, the Universal, attain truth.

As if to mark the distinction between himself and Xenophanes more forcibly, he says: 'Inhaling through the breath the Universal Ether, which is Divine Reason, we become conscious. In sleep we are unconscious, but on waking we again become intelligent; for in sleep, when the organs of sense are closed, the mind within is shut out from all sympathy with the surrounding ether, the universal Reason; and the only connecting medium is the breath, as it were a root, and by this separation the mind loses the power of recollection it before possessed. Nevertheless on awakening the mind repairs its memory through the senses, as it were through inlets; and thus, coming into contact with the surrounding ether, it resumes its intelligence. As fuel when brought near the fire is altered and becomes fiery, but on being removed again becomes quickly extinguished; so too the portion of the all-embracing which sojourns in our body becomes more irrational when separated from it; but on the restoration of this connection, through its many pores or inlets, it again becomes similar to the whole.'

Can anything be more opposed to the Eleatic doctrine? That system rests on the certitude of pure Reason; this declares that Reason left to itself, i. e. the mind when it is not nourished by the senses, can have no true knowledge. The one system is exclusively rational, the other exclusively sensuous; but both are pantheistical, for in both it is the universal Intelligence which becomes conscious in man,—a conception pushed to its ultimate limits by Hegel. Accordingly Hegel declares that there is not a single point in the Logic of Heraclitus which he, Hegel, has not developed in his own Logic.†

The reader will remark how in Heraclitus, as in Parmenides, there is opened the great question which for so long agitated the schools, and which still agitates them,—the question respecting the origin of our ideas. He will also remark how the two great parties, into which thinkers have divided themselves on the question, are typified in these two early thinkers. In Parmenides the idealist school, with its disregard of sense; in Heraclitus the sensational school, with its disregard of everything not derived from sensation.

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* 'Αληθὲς τὸ μὴ λῆθον. This kind of play upon words is very characteristic of metaphysical thinkers in all ages.

† HEGEL: *Gesch. der Phil.* i. 301.

With Xenophanes, Heraclitus agreed in denouncing the perpetual delusion which reigned in the mind of man; but he placed the cause of that delusion in the imperfection of human Reason, not, as Xenophanes had done, in the imperfection of Sense. He thought that man had too little of the Divine Ether (soul) within him. Xenophanes thought that the senses clouded the intellectual vision. The one counselled man to let the Universal mirror itself in his soul through the senses; the other counselled him to shut himself up within himself, to disregard the senses, and to commune only with ideas.

It seems strange that so palpable a contradiction between two doctrines should ever have been overlooked. Heraclitus is often said to have regarded the world of Sense as a perpetual delusion: and this is said in the very latest and not the least critical of Histories. Whence this opinion? Simply from the scepticism of both Heraclitus and Xenophanes with respect to Phenomena (appearances). It is true they both denied the certainty of human knowledge, but they denied this on different grounds. 'Man has no certain knowledge,' said Heraclitus, 'but God has; and vain man learns from God just as the boy from the man.' In his conception, human intelligence was but a portion of the Universal Intelligence; but a part can never be otherwise than imperfect. Hence it is that the opinion of all mankind upon any subject (common sense) must be a nearer approximation to the truth than the opinion of any individual; because it is an accumulation of parts, making a nearer approach to the whole.

Men erred by following their individual judgement as if it were the absolute judgement, as if reason belonged to each individually. But the real way of reaching truth was to get free from this individual bias, and to follow the universal reason. Each man must familiarise his mind with that common process which directs the world; in sleep he leaves the individual world and retires into the universal reason. No man really understands, no man is possessed of universal reason, unless he has discovered the general scheme of things, namely its perpetual *alternation*, its unity of contraries. Whoever had risen to this height had mastered the universal reason.

While therefore he maintained the uncertainty of all knowledge, he also maintained its certainty. Its origin was Sense; being sensuous and individual, it was imperfect, *because* individual; but it was true as far as it went. The ass, he scornfully said, prefers thistles to gold. To the ass gold is *not* so valuable as thistle. The ass is at once right and wrong. Man is equally right and wrong in all positive affirmations; for nothing truly *is*, about which a positive affirmation can be made. 'All is,' he said, 'and all is not; for though in truth it does come into being, yet it forthwith ceases to be.'

We are here led to his celebrated doctrine of all things as a 'perpetual flux and reflux;' which Hegel declares to be an anticipation of his own celebrated dogma, *Seyn und Nichtseyn ist dasselbe*: 'Being and Non-being is the same.'[*] Heraclitus conceived the principle—ἀρχή—of all things to be Fire. To him Fire was the type of spontaneous force and activity; not flame, which was only an intensity of Fire, but a warm, dry vapour—an Ether; this was the beginning. He says: 'The world was neither by God[†] nor man; and it was, and is, and ever shall be, an ever-living fire in due measure self-enkindled and in due measure self-extinguished.' That this is but a modification of the Ionian system, the reader will at once discern. The fire, which here stands as the semi-symbol of Life and Intelligence, because of its spontaneous activity, is but a modification of the Water of Thales and the Air of Anaximenes; moreover, it is only semi-symbolical. Those who accept it as a pure symbol overlook the other parts of the system. The system which proclaims the senses as the source of all knowledge necessarily attaches itself to a material element as the primary one. At the same time this very system is in one respect a deviation from the Ionian; in the distinction between sense-knowledge and reflective knowledge. Hence we placed Diogenes of Apollonia as the last of the pure Ionians; although chronologically he came some time after Heraclitus, and his doctrine is in many respects the same as that of Heraclitus.

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[*] Much of the ridicule which this logical canon has excited, especially in England, has been prompted by the blindest misunderstanding. The laughers, misled by verbal ambiguity, have understood Hegel to say that Existence and Non-Existence was one and the same, as if by *Nichtseyn* he meant Nothing in the common acceptation of that word. By Nothing he meant no thing—no discreet determined object—existence pure and simple, free from all conditions.

[†] This is the translation given in RITTER: it is not however exact; *οὔτε τις θεῶν*

This Fire which is for ever kindling into flame, and passing into smoke and ashes; this restless, changing flux of things which never *are*, but are ever *becoming*; this Heraclitus proclaimed to be God, or the One.

Take his beautiful illustration of a river: 'No one has ever been twice on the same stream; for different waters are constantly flowing down; it dissipates its waters and gathers them again—it approaches and it recedes—it overflows and falls.' This is evidently but a statement of the flux and reflux, as in his aphorism that 'all is in motion; there is no rest or quietude.' Let us also add here what Ritter says:—

'The notion of life implies that of alteration, which by the ancients was generally conceived as motion. The Universal Life is therefore an eternal motion, and therefore tends, as every motion must, towards some end, even though this end, in the course of the evolution of life, present itself to us as a mere transition to some ulterior end. Heraclitus on this ground supposed a certain longing to be inherent in Fire, to

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is the original, i. e. 'neither one of the Gods,' meaning of course one of the polytheistic Deities.

gratify which it constantly transformed itself into some determinate form of being, without, however, any wish to maintain it, but in the mere desire of transmuting itself from one form into another. Therefore, to make worlds is Jove's pastime.'

He explained phenomena as the concurrence of opposite tendencies and efforts in the motion of the ever-living Fire, out of which results the most beautiful harmony. All is composed of contraries, so that the good is also evil, the living is dead, etc. The harmony of the world is one of conflicting impulses, like that of the lyre and the bow. The strife between opposite tendencies is the parent of all things: *πόλεμος πάντων μὲν πατὴρ ἐστὶ πάντων δὲ βασιλεὺς, καὶ τοὺς μὲν θεοὺς ἔδειξε τοὺς δὲ ἀνθρώπους τοὺς μὲν δούλους ἐποίησε τοὺς δὲ ἐλευθέρους.* Nor is this simple metaphor: the strife here spoken of is the splitting in two of that which is in essence one; the contradiction which necessarily lies between the particular and the general, the result and the force, Being and Non-Being. All life is change, and change is strife.

Heraclitus was the first to proclaim the absolute vitality of Nature, the endless change of matter, the mutability and perishability of all individual things, in contrast with the eternal Being, the supreme Harmony which rules over all.

The view here taken of his doctrines will at once explain the position in which we have placed them. Heraclitus stands with one foot on the Ionian path, and with the other on the Italian; but his attempt is not to unite these two; his office is negative; he has to criticise both.

§ II. ANAXAGORAS.

Anaxagoras is generally said to have been born at Clazomenæ in Lydia, not far from Colophon. Inheriting from his family a splendid patrimony, he seemed born to figure in the State; but, like Parmenides, he disregarded all such external greatness, and placed his ambition elsewhere. Early in life, so early as his twentieth year, the passion for philosophy engrossed him. Like all young ambitious men, he looked with contempt upon the intellect exhibited in his native city. His soul panted for the capital. The busy activity and the growing importance of Athens solicited him. He yearned towards it as the ambitious youth in a provincial town yearns for London; as all energy longs for a fitting theatre on which to play its part.

He came to Athens. It was a great and stirring epoch. The countless hosts of Persia had been scattered by a handful of resolute men. The political importance of Greece, and of Athens the Queen of Greece, was growing to a climax. The Age of Pericles, one of the most glorious in the annals of mankind, was dawning. The Poems of Homer formed the subject of literary conversation. The early triumphs of Æschylus had created a Drama, such as still remains the wonder and delight of scholars and critics. The young Sophocles, that perfect flower of antique art, was then in his bloom, meditating on that Drama which he was hereafter to bring to perfection in the *Antigone* and the *Œdipus Rex*. The Ionian philosophy had found a home at Athens; and the young Anaxagoras shared his time with Homer and Anaximenes.*

Philosophy soon obtained the supreme place in his affections. He yielded himself to the fascination, and declared that the aim and purpose of his life was to contemplate the heavens. All care for his affairs was given up. His estates ran to waste, whilst he was solving problems. But the day he found himself a beggar, he exclaimed, 'To Philosophy I owe my worldly ruin, and my soul's prosperity.' He commenced teaching, and among illustrious pupils counted Pericles, Euripides, and Socrates.

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* By this we no more intimate that he was a disciple of Anaximenes (as some historians assert) than that he was a friend of Homer. But in some such ambiguous phrase as that in the text, must the error of calling him the disciple of Anaximenes have arisen. BRUCKER's own chronology is strangely at variance with his statement: for he places the birth of Anaximenes, 56th Olympiad; that of Anaxogaras, 70th Olympiad: thus making the master fifty-six years old at the birth of the pupil; and the pupil had reached the middle of his life before seeking the supposed master, who must then have been a century old.

He was not long without paying the penalty of success. The envy and uncharitableness of some, joined the bigotry of others in an accusation of impiety against him. He was tried, and condemned to death; but owed the mitigation of his sentence into banishment, to the eloquence of his friend and pupil, Pericles. Some have supposed that the cause of his persecution was this very friendship of Pericles; and that the statesman was struck at through the unpopular philosopher. The supposition is gratuitous, and belongs rather to the ingenuity of modern scholarship, than to the sober facts of history. In the persecution of Anaxagoras there is nothing but what was very natural; it was the persecution which occurred afterwards in the case of Socrates, and has subsequently occurred a thousand times in the history of mankind, as the simple effect of outraged convictions. Anaxagoras attacked the religion of his time: he was tried and condemned for his temerity.

After his banishment he resided in Lampsacus, and there preserved tranquillity of mind until his death. 'It is not I who have lost the Athenians; it is the Athenians who have lost me,' was his proud reflection. He continued his studies, and was highly respected by the citizens, who, wishing to pay some mark of esteem to his memory, asked him on his deathbed in what manner they could do so. He begged that the day of his death might be annually kept as a holiday in all the schools of Lampsacus. For centuries this request was fulfilled. He died in his seventy-third year. A tomb was erected to him in the city, with this inscription:—

> This tomb great Anaxagoras confines,
> Whose mind explored the heavenly paths of Truth.

His philosophy contains so many contradictory principles, or perhaps it would be more correct to say so many contradictory principles are attributed to him, that it would be vain to attempt a systematic view of them. We may, as usual, confine ourselves to leading doctrines.

On the great subject of the origin and certainty of our knowledge, he differed from Xenophanes and Heraclitus.

He thought, with the former, that all sense-knowledge is delusive; and, with the latter, that all knowledge comes through the senses. Here is a double scepticism brought into play. It has usually been held that these two opinions contradict each other; that he could not have maintained both. Yet both opinions are tenable. His reason for denying certainty to the senses was the incapacity of distinguishing all the real objective elements of which things are composed. Thus the eye discerns a complex mass which we call a flower; but discerns nothing of that *of which* the flower is composed. In other words, the senses perceive *phenomena*, but do not and cannot observe *noumena*,[*]—an anticipation of the greatest discovery of psychology, though seen dimly and confusedly by Anaxagoras. Perhaps the most convincing proof of his having so conceived knowledge is in the passage quoted by Aristotle: 'Things are to each according as they seem to him' (*ὅτι τοιαῦτα αὐτοῖς τὰ ὄντα, οἷα ἂν ὑπολάβωσι*). What is this but the assertion of all knowledge being confined to phenomena? It is further strengthened by the passage in Sextus Empiricus, that 'phenomena are the criteria of our knowledge of things beyond sense,' i. e. things inevident are evident in phenomena (*τῆς τῶν ἀδήλων καταλήψεως, τὰ φαινόμενα*).

It must not, however, be concluded, from the above, that Anaxagoras regarded Sense as the sole origin of Knowledge. He held that the Reason (λόγος) was the regulating faculty of the mind, as Intelligence (νοῦς) was of the universe. The senses are accurate in their reports; but their reports are not accurate copies of Things. They reflect objects; but they reflect them as these objects appear to Sense. Reason has to control these impressions, to verify these reports.

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[*] *Noumenon* is the antithesis to *Phenomenon*, which means *Appearance*; *Noumenon* means the *Substratum*, or, to use the scholastic word, the *Substance*. Thus, as matter is recognised by us only in its manifestations (phenomena), we may logically distinguish those manifestations from the thing manifested (noumenon). And the former will be the *materia circa quam*; the latter, the *materia in quâ*. Noumenon is therefore equivalent to the *Essence*; Phenomenon to the *Manifestations*.

Let us now apply this doctrine to the explanation of some of those apparently contradictory statements which have puzzled critics. For instance, Anaxagoras says that snow is not white but black, because the water of which it is composed is black. Now, in this he could not have meant that snow did not appear to our senses white; his express doctrine of sense-knowledge forbids such an interpretation. But Reason told him that the Senses gave inaccurate reports; and, in this instance, Reason showed him how their report was contradictory, since the water was black, yet the snow white. Here, then, is the whole theory of knowledge exemplified: Sense asserting that snow is white; Reflection asserting that snow made from black water could not *be* white, only *seem* white. He had another illustration:—Take two liquids, white and black, and pour the one into the other drop by drop; the eye will be unable to discern the actual change as it is gradually going on; it will only discern it at certain marked intervals.

Thus did he separate himself at once from Xenophanes and Heraclitus. From the former, because admitting Sense to be the only criterion of things, the only source of knowledge, he could not regard the λόγος as the unfailing source of truth, but merely as the reflective power, whereby the reports of sense were controlled. From the latter, because reflection convinced him that the reports of the senses were subjectively true, but objectively false.* Both Xenophanes and Heraclitus had principles of absolute certitude; the one proclaimed Reason, the other Sense, to be that principle.

Anaxagoras opposed the one by showing that the Reason was dependent on the Senses for materials; and he opposed the other by showing that the materials were fallacious.

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* Subjective and objective are now almost naturalised terms: it may not be superfluous, nevertheless, to explain them. The *subject* means 'the Mind of the Thinker' (*Ego*), the *object* means the 'Thing thought of' (*Non-Ego*). The above passage—'the reports of the senses being subjectively true'—means that the senses truly inform us of their *impressions*; but these impressions are not at all like the actual *objects* (as may be shown by the *broken appearance* of a stick, half of which is dipped in water), and therefore the reports are objectively false.

Having thus, not without considerable difficulty, brought his various opinions on human knowledge under one system, let us endeavour to do the same for his cosmology. The principle of his system is thus announced:—'Wrongly do the Greeks suppose that aught begins or ceases to be; for nothing comes into being or is destroyed; but all is an aggregation or secretion of pre-existent things: so that all becoming might more correctly be called becoming-mixed, and all corruption becoming-separate.' He denied a Creation, admitting only an Arrangement: instead of one first element, there was an infinite number of elements. These elements were the celebrated *homœomeriæ*:—

> Ex aurique putat micis consistere posse
> Aurum, et de terris terram concrescere parvis,
> Ignibus ex ignem, humorem ex humoribus esse;
> Cætera consimili fingit ratione putatque.[*]

This singular opinion, which maintains that flesh is made of molecules of elementary flesh, and bones of elementary bones, and so forth, is intelligible on his theory of knowledge. Sense discerns elementary differences in matter, and Reflection confirms the truth of this observation. Nothing can proceed from Nothing; the universe can be only an Arrangement of existing things; but when in this Arrangement certain things are discovered to be radically distinguished from each other, gold from blood for example,—either the distinction observed by the Senses is altogether false, or else the things distinguished must be elements. But the first horn of the dilemma is avoided by the sensuous nature of all knowledge; if the Senses deceive us in this respect, and Reason does not indicate the deception, then is all knowledge a delusion; therefore, unless we adopt scepticism, we must abide by the testimony of the Senses as to the essential distinction of things. But,

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Lucretius, i. 839.

That gold from parts of the same nature rose,
That earths do earth, fires fire, airs air compose,
And so in all things else alike to those.'—Creech.

There seems to be good reason to believe that not Anaxagoras, but Aristotle, was the originator of the word *homœomeriæ*. See Ritter, i. 286.

having granted the distinction, we must grant that the things distinguished are elements; if not, whence the distinction? Nothing can come of Nothing; blood can only become blood, gold can only become gold, mix them how you will; if blood can become bone, then does bone become something out of nothing, for it was not bone before, and it is bone now. But, as blood can only be blood, and bone only be bone, whenever they are mingled it is a mingling of two elements, *homœomeriæ*.

In the beginning therefore there was the Infinite composed of *homœomeriæ*, or elementary seeds of infinite variety. So far from The All being The One, as Parmenides and Thales equally taught, Anaxagoras proclaimed The All to be The Many. But the mass of elements were as yet unmixed. What was to mix them? What power caused them to become arranged in one harmonious all-embracing system?

This power Anaxagoras declared to be Intelligence (*νοῦς*), the moving force of the Universe. He had, on the one hand, rejected Fate, as an empty name; on the other, he rejected Chance, as being no more than the Cause unperceived by human reasoning (*τὴν τύχην, ἄδηλον αἰτίαν ἀνθρωπίνῳ λογισμῷ*). This is another remarkable glimpse of what modern philosophy was to establish. Having thus disclaimed these two powers, so potent in early speculation, Fate and Chance, he had no other course left than to proclaim Intelligence the Arranging Power.*

This seems to us, on the whole, the most remarkable speculation of all the pre-Socratic epoch; and indeed is so very near the philosophic precision of modern times, that it is with difficulty we preserve its original simplicity. We will cite a portion of the fragment preserved by Simplicius, wherein Intelligence is spoken of:—'Intelligence (*νοῦς*) is infinite, and autocratic; it is mixed up with nothing, but exists alone in and for itself. Were it otherwise, were it mixed up with anything, it would participate in the nature of all things; for in all there is a part of all; and so that which was mixed with intelligence would prevent it from exercising power over all things.'*—In this passage we may fancy we read an anticipation of the modern conception of the Deity acting through invariable laws, but in no way mixed up with the matter acted on.

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* We have his own words reported by DIOGENES, who says that his work opened thus: 'Formerly all things were a confused mass; afterwards, Intelligence coming, arranged them into worlds.'

Nevertheless a deeper acquaintance with ancient Speculation discloses that Anaxagoras had no thought of making *Nous* the representative of the supreme Deity, or even as a God among Gods. It was only the abstract form of the vital principle animating animals and plants. 'It is one substance or form of matter among the rest' says Mr. Grote 'but thinner than all of them (thinner even than fire or air) and distinguished by the peculiar characteristic of being unmixed. It has moving power and knowledge, like the Air of Diogenes the Apolloniate; it initiates movement; and it knows about all things which will pass into or out of combination.' It was not, like the Demiurgus of Plato, an extra mundane Architect nor, like the Nature of Aristotle, an intra mundane immanent instinct, but simply one among the numerous agents, material like the rest, and only differing from them by being pure.† The homœomeriæ are coeternal with if not anterior to the Nous, having laws of their own which they follow without waiting for the dictation of the Nous.

Aristotle objects to Anaxagoras, that 'he uses Intelligence as a machine,‡ in respect to the formation of the world; so that, when he is embarrassed how to explain the cause of this or that, he introduces Intelligence; but in all other things it is any cause but Intelligence which produces things.' Anaxagoras assigned to Intelligence the great Arrangement of the *homœomeriæ*; but of course he supposed that subordinate arrangements were carried on by themselves. The Christian thinker some centuries back believed that the Deity created and ordained all things; nevertheless when he burnt his finger the cause of the burn he attributed to fire, and not to God; but when the thunder muttered in the sky he attributed that to no cause but God. Is not this similar to the conception formed by Anaxagoras? What he *can* explain, he does explain by natural causes; whatever he is embarrassed to explain, whatever he does not understand, he attributes to Nous. It is here we see the force of his opinion respecting Chance as an unascertained cause: what others called the effect of Chance, he called the effect of the universal Intelligence.

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* This passage perfectly accords with what ARISTOTLE says, *De Animâ*, i. 2, and *Metaph.* i. 7.

† See on this point HEGEL: *Gesch. d. Phil.* i. 356. 'Hierbei müssen wir uns nicht den subjectiven Gedanken vorstellen; wir denken beim Denken sogleich an unser Denken, wie es im Bewusstsein ist. Hier ist dagegen der ganz objective Gedanke gemeint. . . . . Der Νοῦς ist also nicht ein denkendes Wesen draussen, das die Welt eingerichtet . . . ein denkendes sogenanntes Wesen ist kein Gedanke mehr, ist ein Subject.'

‡ This is an allusion to the theatrical artifice of bringing down a God from Olympus, to solve the difficulty of the *dénouement*,—the *Deus ex machinâ* of Horace. We make this remark to caution the reader against supposing that the objection is to a mechanical intelligence.

Those who have read the *Phædo*,—and who has not read it in some shape or other, either in the original, or in the dim and misty version of some translator?—those who have read the *Phædo*, we say, will doubtless remember the passage in which Socrates is made to express his poignant disappointment at the doctrine of Anaxagoras, to which he had at first been so attracted. This passage has an air of authenticity. It expresses a real disappointment, and the disappointment of Socrates, not merely of Plato. We believe firmly that Socrates is here expressing his own opinion; and it is rarely that we can say this of opinions promulgated by Plato under the august name of his master. Here is the passage in the misty version of Thomas Taylor.

'But having once heard a person reading from a certain book, composed as he said by Anaxagoras, when he came to that part in which he says that intellect orders and is the cause of all things, I was delighted with this cause, and thought that in a certain respect it was an excellent thing for intellect to be the cause of all; and I considered if this was the case, disposing intellect would adorn all things, and place everything in that situation in which it would subsist in the best manner. If any one therefore should be willing to discover the cause through which everything is generated or corrupted, or is, he ought to discover how it may subsist in the best manner, or suffer, or perform anything else. In consequence of this therefore, it is proper that a man should consider nothing else, either about himself or about others, except that which is the most excellent and the best; but it is necessary that he who knows this should also know that which is subordinate, since there is one and the same science of both. But thus reasoning with myself, I rejoiced, thinking that I had found a preceptor in Anaxagoras, who would instruct me in the causes of things agreeable to my own conceptions; and that he would inform me in the first place whether the earth is flat or round, and afterwards explain the cause of its being so, adducing for this purpose that which is better, and showing that it is better for the earth to exist in this manner. And if he should say that it is situated in the middle, that he would besides this show that it was better for it to be in the middle—and if he should render all this apparent to me, I was so disposed as not to require any other species of cause; for I by no means thought, after he had said that all these were orderly disposed by intellect, he would introduce any other cause for their subsistence except that which shows that it is better for them to exist in this manner. Hence I thought that in rendering the cause common to each particular and to all things, he would explain that which is best for each, and is the common good of all. And indeed I would not have exchanged these hopes for a mighty gain! But having obtained his books with prodigious eagerness, I read them with great celerity, that I might with great celerity know that which is best and that which is base.

'But from this admirable hope, my friend, I was forced away, when in the course of my reading I saw him make no use of intellect, nor employ certain causes for the purpose of orderly disposing particulars, but assign air, æther, and water, and many other things equally absurd, as the causes of things. And he appeared to me to be affected in a manner similar to him who should assert that all the actions of Socrates are produced by intellect; and afterwards, endeavouring to relate the causes of each particular action, should say that I now sit here because, in the first place, my body is composed of bones and nerves, and that the bones are solid, and are separated by intervals from each other; but that the nerves, which are by nature capable of intension and remission, cover the bones together with the skin in which they are contained. The bones, therefore, being suspended from their joints, the nerves, by straining and relaxing them, enable me to bend my limbs as at present; and through this cause I here sit in an inflected position. And again, should assign other such like causes of my now conversing with you, namely, voice and air and hearing, and a thousand other particulars, neglecting the true cause, that since it appeared to the Athenians better to condemn me on this account, it also appeared to me better and more just to sit here, and thus abiding, sustain the punishment which they have ordained me; for otherwise, by the dog, as it appears to me, these bones and nerves would have been carried long ago either into Megara or Bœotia through an opinion of that which is best, if I had not thought it more just and becoming to sustain the punishment ordered by my country, whatever it might be, than to withdraw myself and run away. But to call things of this kind causes is extremely absurd. Indeed, if any one should say that without possessing such things as bones and nerves I could not act as I do, he would speak the truth; but to assert that I act as I do at present through these, and that I operate with this intellect, and not from a choice of what is best, would be an assertion full of extreme negligence and sloth: for this would be the consequence of not being able to collect by division that the true cause of a thing is very different from that without which a cause would not be a cause.'

Now this reasoning we take to be an *ignoratio elenchi.* The illustration made use of is nothing to the purpose, and would be admitted by Anaxagoras as true, without in the least impugning his argument.

The Intelligence, which Anaxagoras conceived, was, as we saw, in no wise a moral Intelligence: it was simply the *primum mobile*, the all-knowing and motive force by which the arrangement of the elements was effected. Men are still so accustomed to conceive the divine Intelligence as only a more perfect and exalted human Intelligence, that where they see no traces of the latter they are prone to question the existence of the former. When Anaxagoras says that *Nous* was the creative principle, men instantly figure to themselves a *Nous* similar to human intelligence. On examination they find that *such* an intelligence has no place in the doctrine, whereupon they declare that Intelligence has no place there; the *Nous*, they aver, means no more than Motion, and might have been called Motion.

But fortunately Simplicius has preserved a long passage from the work of Anaxagoras; we have already quoted a portion of it, and shall now select one or two sentences in which the *Nous*, as a cognitive power, is distinctly set forth; and we quote these the more readily because Ritter, to whom we are indebted for the passage, has not translated it:—'Intelligence is, of all things, the subtlest and purest, and has entire knowledge of all. Everything which has a soul, whether great or small, is governed by the Intelligence (νοῦς κρατεῖ). Intelligence knows all things (πάντα ἔγνω νοῦς), both those that are mixed and those that are separated; and the things which ought to be, and the things which were, and those which now are, and those which will be; all are arranged by Intelligence (πάντα διεκόσμησε νοῦς*).'

The relation in which the system of Anaxagoras stands to other systems may be briefly characterised. The Infinite Matter of the Ionians became in his hands the *homœomeriæ*.

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* It would be needless after this to refer to the numerous expressions of Aristotle in confirmation. The critical reader will do well to consult TRENDELENBURG, *Aristot. de Anim.*, p. 466 *et seq.* PLATO, in speaking of the νοῦς, adds καὶ ψυχή.—*Cratylus*, p. 400.

Instead of one substance, such as Water, Air, or Fire, he saw the necessity of admitting Many substances. At the same time, he carried out the Pythagorean and Eleatic principle of The One; thus avoiding the dialectical thrusts of Zeno against the upholders of The Many. Hegel and M. Cousin would call this eclecticism; and in one sense they would be correct; but inasmuch as Anaxagoras was led to his doctrine by the development which the Ionian and the Eleatic principles had taken, and was not led to it by any eclectical method, we must protest against the application of such a name. There was a truth dimly recognised by the Ionians, namely, that the material phenomena are all reducible to some *noumenon*, some ἀρχή. What that Beginning was, they variously sought. Anaxagoras also sought it; and his doctrine of perception convinced him that it could not be One principle, but Many; hence his *homœomeriæ*. So far he was an Ionian. But there was also a truth dimly seen by the Eleatics, namely, that The Many could never be resolved into One; and as without One there could not be Many, and with the Many only there could not be One; in other words, as God must be The One from whom the multiplicity of things is derived, the necessity of admitting The One as The All and the Self-existent was proved. This reasoning was accepted by Anaxagoras. He saw that there were Many things; he saw also the necessity for The One. In so far he was an Eleatic.

Up to this point the two doctrines had been at variance: a chasm of infinite depth yawned between them. Zeno's invention of Dialectics was a result of this profound difference. It was reserved for Anaxagoras to bridge over the chasm which could not be filled up. He did so with consummate skill. He accepted both doctrines, with some modifications, and proclaimed the existence of the Infinite Intelligence who was the Architect of the Infinite Matter. By this means he escaped each horn of the dilemma: he escaped that which gored the Ionians, namely, as to *how* and *why* the Infinite Matter became fashioned into worlds and beings, since Matter by itself can only be Matter. He escaped that which gored the Eleatics, as to *how* and why the Infinite One, who was pure and unmixed, became the Infinite Many, impure and mixed, since one thing could never be more than one thing: it must have some other thing on which to act, for it cannot act upon itself. Anaxagoras escaped both by his dualistic theory of Mind fashioning, and Matter fashioned.

A similar bridge was thrown by him over the deep chasm separating the Sensationalists from the Rationalists, with respect to the origin of knowledge. He admitted both Sense *and* Reason; they had only admitted either Sense *or* Reason.

These two points entitle Anaxagoras to a very high rank in the history of Philosophy.

§ III. Empedocles.

I am forced to differ from all historians I have consulted, except De Gerando, who hesitates about the matter, respecting the place occupied by Empedocles. Brucker classes him among the Pythagoreans; Ritter, amongst the Eleatics; Zeller and Hegel, as the precursor of the Atomists, who precede Anaxagoras; Renouvier, as the precursor of Anaxagoras; Tennemann places Diogenes of Apollonia between Anaxagoras and Empedocles, but makes Democritus precede them. When I come to treat of the doctrines of Empedocles, I shall endeavour to show the filiation of ideas from Anaxagoras. Meanwhile it is necessary to examine the passage in Aristotle, on which very contradictory opinions have been grounded.

In the 3rd chapter of the 1st book of Aristotle's *Metaphysics*, after a paragraph on the system of Empedocles, occurs this passage: 'But Anaxagoras of Clazomenæ being superior to him (Empedocles) in respect of age, but inferior to him in respect of opinions, said that the number of principles was infinite.' In the words '*superior*' and '*inferior*' the antithesis of the original is preserved; but it would be less equivocal to say '*older*' and '*inferior.*'

There are two other interpretations of this passage. One of them is that of M. Cousin (after Hegel), who believes that the antithesis of Aristotle is meant to convey the fact that Anaxagoras, although older in point of time, is more recent in point of published doctrine than Empedocles, having written after him. This is his translation: 'Anaxagoras, qui naquit avant ce dernier, mais qui écrivit après lui.'

The second is that adopted by M. Renouvier from M. Ravaisson, who interprets it as meaning that the doctrine of Anaxagoras, though more ancient in point of publication, is more recent in point of thought: *i.e.* philosophically more developed, although historically earlier.

I believe both these interpretations to be erroneous. There is no ground for them except the antithesis of Aristotle; and the original of this disputed passage is, *'Αναξαγόρας δὲ ὁ Κλαζομένιος τῇ μὲν ἡλικίᾳ πρότερος ὢν τούτου, τοῖς δ' ἔργοις ὕστερος*: which is rendered by MM. Pierron and Zévort: 'Anaxagore de Clazomène, l'aîné d'Empédocle, *n'était pas arrivé à un système aussi plausible.*'*

This agrees with my version. I confess, however, that on a first glance M. Cousin's version better preserves the force of the antithesis *τῇ μὲν ἡλικίᾳ πρότερος—τοῖς δ' ἔργοις ὕστερος.* But other reasons prevent a concurrence in this interpretation. MM. Pierron and Zévort, in their note on the passage, remark: 'Mais les mots *ἔργῳ, ἔργοις,* dans une opposition, ont ordinairement une signification vague, comme *re*, *revera*, chez les Latins, et, chez nous, *en fait, en réalité.*' The force of the objection does not strike me. If Anaxagoras was *in fact, in reality,* posterior to Empedocles, we can only understand this in the sense M. Cousin has understood Aristotle; and moreover, MM. Pierron and Zévort here contradict their translation, which says that, in point of fact, the system of Anaxagoras was not so plausible as that of Empedocles.

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* *La Métaphysique d'Aristote*, i. 233.

More weight must be laid on the meaning of ὕστερος, which certainly cannot be exclusively taken to mean posterior in point of time. In the 11th chapter of Aristotle's 5th book he treats of all the significations of πρότερος and ὕστερος. One of these significations is superiority and inferiority. In the sense of inferiority ὕστερος is often used by the poets. Thus Sophocles:—

> Ὦ μιαρὸν ἦθος, καὶ γυναικὸς ὕστερον!
> O shameful character, below a woman!

'Inferior' is the primitive meaning; in English we say, 'second to none,' for 'inferior to none.'

This meaning of ὕστερος, namely, of inferiority, is the one always understood by the old commentators on the passage in question; none of them understood a chronological posteriority. Πρότερος indicates priority in point of time; ὕστερος inferiority in point of merit. Thus Philoponus: 'Prior quidem tempore, sed posterior et mancus secundum opinionem' (fol. 2 a); and the anonymous scholiast of the Vatican MS.: πρότερος γοῦν τῷ χρόνῳ, ἀλλ' ὕστερος καὶ ἐλλείπων κατὰ τὴν δόξαν—'first indeed in time, but second *and inferior* in point of doctrine.'

The only question which now remains to be answered in order to establish the truth of the foregoing interpretation of ὕστερος, is this: Did Aristotle regard the system of Anaxagoras as *inferior* to that of Empedocles?

This question can be answered distinctly in the affirmative. The reader will remember the passage in which Aristotle blames Anaxagoras for never employing his First Cause (Intelligence) except upon emergencies. Aristotle continues thus: 'Empedocles *employs his causes more abundantly*, though not indeed sufficiently,—Καὶ Εμπεδοκλῆς ἐπὶ πλέον μὲν τούτῳ χρῆται τοῖς αἰτίοις, οὐ μὴ οὔτε ἱκανῶς.—*Met* i. 4.

Anaxagoras was born about the 70th Olympiad; Empedocles, by general consent, is said to have flourished in the 84th Olympiad: this would make Anaxagoras at least fifty-six years old at the time when Empedocles published his doctrine, after which age it is barely probable that Anaxagoras would have begun to write; and even this probability vanishes when we look back upon the life of Anaxagoras, who was teaching in Athens about the 76th or 77th Olympiad, and who died at Lampsacus, in exile, in the 88th Olympiad, viz. sixteen years after the epoch in which Empedocles is said to have flourished.

Empedocles was born at Agrigentum, in Sicily, and flourished about the 84th Olympiad (B.C. 444). Agrigentum was at that period at the height of its splendour, and was a formidable rival to Syracuse. Empedocles, descended from a wealthy and illustrious family, acquired a high reputation by his resolute adherence to the democratic party. Much of his wealth is said to have been spent in a singular but honourable manner: namely, in bestowing dowries on poor girls, and marrying them to young men of rank and consequence. Like most of the early philosophers, he is supposed to have been a great traveller, and to have gathered in distant lands the wondrous store of knowledge which he displayed. It was assumed that only in the far East could he have learned the potent secrets of Medicine and Magic; only from the Egyptian Magi could he have learned the art of Prophecy.

It is probable, however, that he did travel into Italy, and to Athens. But in truth we can mention little of his personal history that is not open to question. His name, like that of Pythagoras, passed easily into the regions of fable. The same august majesty of demeanour and the same marvellous power over nature are attributed to both. Miracles were his pastimes. In prophecy, in medicine, in power over the winds and rains, his wonders were so numerous and so renowned, that when he appeared at the Olympic Games all eyes were reverentially fixed upon him. His dress and demeanour accorded with his reputation. Haughty, impassioned, and eminently disinterested in character, he refused the government of Agrigentum when freely offered him by the citizens; but his love of distinction showed itself in priestly garments, a golden girdle, the Delphic crown, and a numerous train of attendants. He proclaimed himself to be a God whom men and women reverently adored. But we must not take this literally: he probably only 'assumed by anticipation an honour which he promised all soothsayers, priests, physicians, and princes of the people.'

Fable has also taken advantage of the mystery which overhangs his death, to create out of it various stories. One relates that, after a sacred festival, he was drawn up to heaven in a splendour of celestial effulgence. Another and more popular one is, that he threw himself headlong into the crater of Mount Ætna, in order that he might pass for a God, the cause of his death being unknown; but one of his brazen sandals, thrown out in an eruption, revealed the secret.

A similar uncertainty exists as to his teachers and his writings. Pythagoras, Parmenides, Xenophanes, and Anaxagoras have all been positively named as his teachers. Unless we understand the word teachers in a figurative sense, we must reject these statements. Diogenes Laertius, who reports them, does so with an absence of criticism which would be remarkable in another.* Considering that there was, at least, one hundred and forty years between Pythagoras and Empedocles, we need no further argument to disprove any connection between them.

Diogenes, on the authority of Aristotle (as he says), attributes to Empedocles the invention of Rhetoric; and Quinctilian (iii. c. 1) has repeated the statement. We have no longer the work of Aristotle; but, as Ritter says, the assertion must have arisen from a misunderstanding, or have been said in jest by Aristotle, because Empedocles was the teacher of Gorgias: most likely from a misunderstanding, since Sextus Empiricus mentions Aristotle as having said that Empedocles first *incited* or *gave an impulse* to Rhetoric.† Aristotle, in his *Rhetoric*, declares that Corax and Tisias were the first to publish a written Treatise on Eloquence.

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* DIOGENES is one of the stupidest of the stupid race of compilers. His work is useful because containing extracts, but can rarely be relied on for anything else.

† Πρῶτον κεκινηκέναι. —*Adv. Mat.* vii.

We feel the less hesitation in rejecting the statement of Diogenes, because in the very passage which succeeds he is guilty of a very gross misquotation of Aristotle, who, as he says, 'in his book of *The Poets* speaks of Empedocles as Homeric, powerful in his eloquence, rich in metaphors, and other poetical figures.'* Now this work of Aristotle on the Poets is fortunately extant, and it proclaims the very reverse of what Diogenes alleges. Here is the passage :—'Custom, indeed, connecting the *poetry* or *making* with the *metre*, has denominated some elegiac poets, other epic poets: thus distinguishing poets, not according to the nature of their imitation, but according to that of their metre only; for even they who composed treatises of Medicine, or Natural Philosophy in verse, are denominated *Poets*: yet Homer and Empedocles have nothing in common except their metre; the former, therefore, just merits the name of *Poet*; the other should rather be called a *Natural Philosopher* than a Poet.'†

The diversity of opinion with respect to the position of Empedocles, indicated at the opening of this chapter, is not without significance. That men such as Hegel, Ritter, Zeller, and Tennemann should see reasons for different classification cannot be without importance to the historian. Their arguments destroy each other; but it does not therefore follow that they all build upon false grounds. Each view has a certain truth in it; but not the whole truth. The cause of the difference seems to be this: Empedocles has some of the Pythagorean, Eleatic, Heraclitic, and Anaxagorean in his system; so that each historian, detecting one of these elements, and omitting to give due importance to the others, has connected Empedocles with the system to which that one element belongs. Ritter and Zeller have, however, been aware of some of the complex relations of the doctrine, but failed, we think, in giving it its true position.

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* Diog. Laert. lib. viii. c. ii. § 3.

† *De Poet.*, c. i. It is indeed quite possible that Diogenes may have had before him a book περὶ ποιητῶν, perhaps one of the many spurious treatises current under Aristotle's name; but it is not probable that Aristotle would have expressed an opinion so contrary to the one given in his authentic work.

Respecting human knowledge, Empedocles belongs partly to the Eleatics. With them, he complained of the imperfection of the Senses; and looked for truth only in Reason, which is partly human and partly divine: it is partly clouded by the senses. The divine knowledge is opposed to sensuous knowledge; for man cannot approach the divine, neither can he seize it with the hand nor the eye. Hence Empedocles conjoined the duty of contemplating God in the mind. But he appears to have proclaimed the existence of this divine knowledge without attempting to determine its relation to human knowledge. In this respect he resembles rather Xenophanes than Parmenides.*

We have no clear testimony of his having studied the works of Anaxagoras; but, if we had, it might not be difficult to explain his inferior theory of knowledge; for, in truth, the theory of Anaxagoras was too far in advance of the age to be rightly apprehended. Empedocles adhered to the Eleatic theory. With Xenophanes, he bewailed the delusion of the senses and experience. Listen to his lament:

> Swift-fated and conscious, how brief is life's pleasureless portion!
> Like the wind-driven smoke, they are carried backwards and forwards,
> Each trusting to nought save what his experience vouches,
> On all sides distracted; yet wishing to find out the whole truth,
> In vain; neither by eye nor ear perceptible to man,
> *Nor to be grasped by mind*: and thou, when thus thou hast wandered,
> Wilt find that no further reaches the knowledge of mortals.

These verses seem to indicate a scepticism of Reason as well as of the Senses; but other passages show that he upheld the integrity of Reason, which he thought was only prevented from revealing the whole truth because it was imprisoned in the body. Mundane existence was, in his system, the doom of such immortal souls as had been disgraced from Heaven. The Fall of Man he thus distinctly enunciated:

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* Having quoted Aristotle's testimony of the sensuous nature of knowledge in the Empedoclean theory, we need only here refer to it; adding that in this respect Empedocles ranks with Parmenides rather than with Xenophanes.

This is the law of Fate, of the Gods an olden enactment,
If with guilt or murder a Dæmon [*] polluteth his members,
Thrice ten thousand years must he wander apart from the blessed.
Hence, doomed I stray, a fugitive from Gods and an outcast,
To raging strife submissive.

But he had some more philosophical ground to go upon when he wished to prove the existence of Reason and of the Divine Nature. He maintained that like could only be known by like: through earth we learn the earth, through fire we learn fire, through strife we learn strife, and through love we learn love. If, therefore,[†] like could only be known by like, the Divine could only be known by Divine Reason; and, inasmuch as the Divine is recognised by man, it is a proof that the Divine exists. Knowledge and Existence mutually imply each other.

Empedocles resembles Xenophanes also in his attacks on anthropomorphism. God, he says, has neither head adjusted to limbs like human beings, nor legs, nor hands:

He is, wholly and perfectly, mind ineffable, holy,
With rapid and swift-glancing thought pervading the whole world.

We may compare these verses with the line of Xenophanes—

Without labour he ruleth all things by reason and insight.

Thus far Empedocles belonged to the Eleatics. The traces of Pythagoras are fewer; for we cannot regard as such all those analogies which the ingenuity of some critics has detected.[‡] In his life, and in his moral precepts, there is a strong resemblance to Pythagoras; but in his philosophy we see none beyond the doctrine of metempsychosis, and the consequent abstinence from animal food.

Heraclitus had said there was nothing but a perpetual flux of things, that the whole world of phenomena was as a flowing river, ever-changing yet apparently the same. Anaxagoras had also said that there was no creation of elements but only an arrangement. Empedocles was now to amalgamate these views. 'Fools!' he exclaims,

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[*] An immortal soul.

[†] We are here thinking for Empedocles; we have no other authority for this statement, than that something of the kind is wanting to make out a plausible explanation of what is only implied in the fragments extant. The fragments tell us that he believed in Reason as the transcendent faculty; and also that Reason did in some way recognise the Divine. All we have done is to supply the link wanting.

[‡] See them noticed in ZELLER, *Philos. der Griechen*, pp. 169–173 (1845).

> Who think aught can begin to be which formerly was not,
> Or, that aught which is, can perish and utterly decay.*
> Another truth I now unfold: no natural birth
> Is there of mortal things, nor death's destruction final;
> Nothing is there but *a mingling, and then a separation of the mingled.*
> Which are called a birth and death by ignorant mortals.' †

So distinct a relationship as these verses manifest towards both Heraclitus and Anaxagoras will account for the classification adopted by Hegel, Zeller, and Renouvier; at the same time it gives greater strength to our opinion of Empedocles as the successor of these two.

The differences are however as great as the resemblances. Having asserted that all things were but a mingling and a separation, he must have admitted the existence of certain primary elements which were the materials mingled.

Heraclitus had affirmed Fire to be both the principle and the element; both the moving, mingling force, and the mingled matter. Anaxagoras, with great logical consistency, affirmed that the primary elements were *homœomeriæ*, since nothing could proceed from nothing, and whatever was arranged must, therefore, be an arrangement of primary elements. Empedocles affirmed that the primary elements were Four, viz. Earth, Air, Fire, and Water: out of these all other things proceed; all things are but the various minglings of these four.

Now, that this is an advance on both the preceding conceptions will scarcely be denied; it bears indubitable evidence of being a later conception, and a modification of its predecessors. Nevertheless, although superior as a physical view, it has not the logical consistency of the view maintained by Anaxagoras; for, as Empedocles taught that like can only be known by like, *i. e.* that existence and knowledge were identical and mutually implicative, he ought to have maintained that whatever is recognised by the mind as distinct, must be distinct *in esse.*

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* Compare Anaxagoras, as quoted p. 77: 'Wrongly do the Greeks suppose that aught begins or ceases to be.'

† Compare Anaxagoras: 'So that all-becoming might more properly be called becoming mixed, and all-corruption becoming separate.'

With respect to the Formative Power, we see the traces of Heraclitus and Anaxagoras in about the same proportion. Heraclitus maintained that Fire was impelled by irresistible Desire to transform itself into some determinate existence. Anaxagoras maintained that the infinite Intelligence was the great Architect who arranged all the material elements, the Mind that controlled and fashioned Matter. The great distinction between these two systems is, that the Fire transforms itself, the *Nous* transforms something which is radically different from itself. Both these conceptions were amalgamated by Empedocles. He taught that Love was the creative power. Wherever there is a mixture of different elements Love is exerted.

Here we see the Desire of Heraclitus sublimed into its highest expression, and the *Nous* of Anaxagoras reduced to its moral expression, Love. The difficulties of the Heraclitean doctrine, namely, as to how Fire can ever become anything different from Fire, are avoided by the adoption of the Anaxagorean dualism; while the difficulties of the Anaxagorean doctrine, namely, as to how the great Arranger was moved and incited to arrange the primary elements, are in some measure avoided by the natural desire of Love (Aphrodite).

But there was a difficulty still to be overcome. If Love was the creator, that is, the Mingler, what caused separation? To explain this, he had recourse to Hate. As the perfect state of supramundane existence was harmony, the imperfect state of mundane existence was Discord. Love was, therefore, the Formative Principle, and Hate the Destructive. Hence he said that

> All the members of God war together, one after the other.

This is but the phrase of Heraclitus, 'Strife is the parent of all things.' It is nevertheless most probable that Empedocles regarded Hate as only a mundane power, as only operating on the theatre of the world, and nowise disturbing the abode of the Gods.* For, inasmuch as Man is a fallen and perverted God, doomed to wander on the face of the earth, sky-aspiring, but sense-clouded; so may Hate be only perverted Love, struggling through space. Does not this idea accord with what we know of his opinions? His conception of God, that is, of the One, was that of a 'sphere in the bosom of harmony fixed, in calm rest, gladly rejoicing.' This quiescent sphere, which is Love, exists above and around the moved World. Certain points are loosened from the combination of the elements, but the unity established by Love continues. Ritter is convinced that 'Hate has only power over the smaller portion of existence, over that part which, disconnecting itself from the whole, contaminates itself with crime, and thereby devolves to the errors of mortals.'

Our account of Empedocles will be found to vary considerably from that in Aristotle; but our excuse is furnished by the great Stagirite himself, who is constantly telling us that Empedocles gave no reasons for his opinions. Moreover, Aristotle makes us aware that his own interpretation is open to question; for he says, that this interpretation can only be obtained by pushing the premises of Empedocles to their legitimate conclusions; a process which destroys all historical integrity, for what thinker *does* push his premises to their utmost limits?

§ IV. DEMOCRITUS.

The laughing Philosopher, the traditional antithesis to Heraclitus, was born at Abdera (the new settlement of the Teians after their abandonment of Ionia), in the 80th Olympiad (B.C. 460). His claim to the title of Laugher, ὁ γελασῖνος, has been disputed, and by moderns generally rejected. Perhaps the native stupidity of his countrymen, who were renowned for abusing the privilege of being stupid, afforded

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An opinion subsequently put forth by PLATO in the *Phædrus*.

him incessant matter for laughter. Perhaps he was by nature satirical, and thought ridicule the test of truth. He was of a noble and wealthy family, so wealthy that it entertained Xerxes at Abdera. Xerxes in recompense left some of his Magi to instruct the young Democritus. Doubtless it was their tales of the wonders of their native land, and of the deep unspeakable wisdom of their priests, which inspired him with the passion for travel. 'I, of all men,' he says, 'of my day, have travelled over the greatest extent of country, exploring the most distant lands; most climates and regions have I visited, and listened to the most experienced and wisest of men; and in the calculations of line-measuring no one hath surpassed me, not even the Egyptians, amongst whom I sojourned five years.' In travel he spent his patrimony: but he exchanged it for an amount of knowledge which no one had previously equalled. The Abderites, on his return, looked on him with vague wonder. The sunburnt traveller brought with him knowledge which, to them, must have appeared divine. He exhibited a few samples of his lore, foretold unexpected changes in the weather, and was at once exalted to the summit of that power to which it is a nation's pride to bow. He was offered political supremacy, but wisely declined it.

It would be idle to detail here the various anecdotes which tradition hands down respecting him. They are mostly either impossible or improbable. That, for instance, of his having put out his eyes with a burning-glass, in order that he might be more perfectly and undisturbedly acquainted with his reason, is in violent contradiction to his theory of the eye being one of the great inlets to the soul. Tradition is less questionable in its account of his having led a quiet sober life, and of his dying at a very advanced age. More we cannot credit.

Respecting his Philosophy there is some certain evidence; but it has been so variously interpreted, and is in many parts so obscure, that historians have been at a loss to give it its due position in relation to other systems. Reinhold, Brandis, Marbach, and Hermann view him as an Ionian; Buhle and Tenneman, as an Eleatic; Hegel, as the successor of Heraclitus, and the predecessor of Anaxagoras; Ritter, as a Sophist; and Zeller, as the precursor of Anaxagoras. Of all these attempts at classification, that by Ritter seems to me the worst. Because Democritus has an occasional phrase implying great vanity—and those mentioned by Ritter seem to us to imply nothing of the kind—he is said to be a Sophist!

Democritus is distinguished from the Ionians by the denial of all sensible quality to the primary elements; from the Eleatics by his affirmation of the existence of a multiplicity of elements; from Heraclitus on the same ground; from Anaxagoras, as we shall see presently; and from Empedocles, by denying the Four Elements, and the Formative Love. All these differences are radical. The resemblances, such as they are, may have been coincidences, or derived from one or two of the later thinkers: Parmenides and Anaxagoras, for example.

What did Democritus teach? This question we will endeavour to answer somewhat differently from other historians; but our answer shall be wholly grounded on precise and certain data, with no other novelty than that of developing the system from its central principles.

To commence with Knowledge, and with the passage of Aristotle, universally accredited though variously interpreted: 'Democritus says, that either nothing is true, or what is true is not evident to us. Universally, in his system, the sensation constitutes the thought, and as at the same time it is but a change [in the sentient being], the sensible phenomena (i.e. *sensations*) are of necessity true.'* This pregnant passage means, I think, that sensation, inasmuch as it is sensation, must be true: that is, true *subjectively*; but sensation, inasmuch as it is sensation, cannot be true *objectively*. M. Renouvier thinks that Democritus was the first to introduce this distinction; but our readers will remember that it was the distinction established by Anaxagoras. Sextus Empiricus quotes the very words of Democritus: The sweet exists only *in form*, the bitter *in form*, the hot *in form*, the cold *in form*, colour *in form*; but in *causal reality* (*αἰτίῃ*)[*] only atoms and space exist. The sensible things which are supposed by opinion to exist have no real existence, but only atoms and space exist.'[†] When he says that sweetness, heat, colour, etc., exist *in form* only, he means that they are sensible images constantly emanating from things; a notion we shall explain presently. A little further on, Sextus reports the opinion, that we only perceive that *which falls in upon us* according to the disposition of our bodies; all else is hidden from us.

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* Ἤτοι οὐθὲν εἶναι ἀληθὲς ἢ ἡμῖν γ' ἄδηλον. Ὅλως δὲ διὰ τὸ ὑπολαμβάνειν φρόνησιν μὲν τὴν αἴσθησιν ταύτην δ' εἶναι ἀλλοίωσιν, τὸ φαινόμενον κατὰ τὴν αἴσθησιν ἐξ ἀνάγκης ἀληθὲς εἶναι.—*Metaph.* iv. 5.

Neither Condillac nor Destutt de Tracy has more distinctly identified sensation and thought, than Democritus has in the above passages. But he does so in the spirit of Kant rather than that of Condillac; for, although with the latter he would say, 'Penser, c'est sentir,' yet he would with the former draw the distinction between phenomenal and noumenal perception.

But did sensation constitute all knowledge? Was there nothing to guide man but the reports of his senses? Democritus said there was *Reflection.*[‡]

Reflection was not the source of absolute truth, but fulfilled a controlling office, and established certitude, as far as there could be certitude in human knowledge. Democritus, aware that most of our conceptions are derived through the Senses, was also aware that many of them were utterly independent, and in seeming defiance of the Senses. Thus the 'infinitely small' and the 'infinitely great' escape Sense, but are affirmed by Reflection. So also the atoms, which his Reason told him were the primary elements of things, could never have become known by Sense.

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[*] Modern editors read *ἐτεῇ*, 'in reality.' We are inclined however to preserve the old reading, as more antithetical to *νόμῳ*.

[†] *Adv. Mathem.* vii. 163.

[‡] **Διάνοια**: etymology, no less than psychology, justifies this translation.

He was not content with the theory of Anaxagoras. There were difficulties which remained unsolved by it; which, indeed, had never been appreciated. Democritus set himself to solve the grand problem. *How do we perceive external things?* It is no satisfactory answer to say that we perceive them by the Senses. This is no better an explanation than that of the occult quality of opium, given by Molière's physician: 'L'opium endormit parcequ'il a une vertu soporifique.' The question arises:—*How is it that the Senses perceive?*

No one had asked this question; to have asked it, was to form an era in the history of Philosophy. Men began by reasoning on the reports of the Senses, unsuspicious of error: when they saw anything, they concluded that what they saw existed and existed *as* they saw it. Afterwards came others who began to question the accuracy of the Senses. Lastly, came those who denied that accuracy altogether, and pronounced the reports to be mere delusions. Thus the question forced itself on the mind of Democritus—In what manner could the Senses perceive external things? Once settle the *modus operandi*, and then the real efficacy of the Senses may be estimated.

The hypothesis by which he attempted to explain perception was both ingenious and bold; and many centuries elapsed before a better one was suggested. He supposed that all things were constantly throwing off images of themselves (εἴδωλα), which, after assimilating to themselves the surrounding air, enter the soul by the pores of the sensitive organ. The eye, for example, is composed of aqueous humours; and water sees. But how does water see? It is diaphanous, and receives the image of whatever is presented to it.

This is a very rude hypothesis; but did not philosophers, for centuries, believe that their senses received *impressions* of things, as wax receives the impressions of a seal? and did they not suppose that *images* of things were reflected in the mind? This latter hypothesis is, perhaps, less obviously fantastic and gratuitous; but how does the mind become a mirror reflecting the images? The hypothesis stands as much in need of explanation as the phenomenon it pretends to explain.

The hypothesis of Democritus, once admitted, serves its purpose; at least to a considerable extent. Only the external surface of a body is thrown off in the shape of an εἴδωλον or image, and even that imperfectly and obscurely. The figure thrown off is not a perfect image of the object throwing it off. It is only an image of the external form, and is subject to variations in its passage to the mind. This being the case, the strictly phenomenal nature of all knowledge is necessarily deduced. The idols or images, being themselves imperfect, our knowledge is necessarily imperfect.

With this theory of Knowledge how could he answer the other, greater, question of Creation? It is said that he rejected The One of the Eleatics, The Four of Empedocles, and the *Homœomeriæ* of Anaxagoras, and declared Atoms, invisible and intangible, to be the primary elements; and that all things were but modes of one of the triple arrangements, namely, configuration, combination, and position. The atom, being indivisible, is necessarily one: and, being one, is necessarily self-existent. His atoms were concrete bodies, each with its own magnitude, figure, and movement: escaping our sensuous perception because of their smallness, but capable of being perceived by minds of more delicate sensibility. It was through the movements and collisions of these atoms that our Cosmos acquired its distinctive forms and laws. He did not find it necessary, with Anaxagoras and Empedocles, to invoke the aid of any external agency in setting these atoms in motion. On the contrary, he thought that they had a motion of their own as a constituent property. He further maintained that every motion was necessarily determined by one or more antecedent motions. Indeed, he recognised the action of fixed laws everywhere, what is called Chance being only the name in which men cloak their ignorance of Law.* By this hypothesis, Democritus satisfied the demands of those who declared that the self-existent must be One; and of those who declared that there were many things existing, and that the One could never be more than the One, never become the Many. He amalgamated the Ionian and Eleatic schools in his speculation, correcting both. He, doubtless, derived this idea from the *homœomeriæ* of Anaxagoras; or, as those who place Anaxagoras later than Democritus would say, originated this idea. It becomes a question, therefore, which of these speculations bears the impress of greater maturity. On this question we cannot hesitate to pronounce. The idea of *homœomeriæ* betrays its more primitive nature in this: it attributes *positive* qualities to atoms, which qualities are not changed or affected by combination or arrangement. The idea of the atom divested of all quality, and only assuming that quality as phenomenal when in combination with other atoms, and changing its quality with every change of combination, is indubitably a far more scientific speculation; it is also obviously later in point of development.

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* MULLACH: *Fragmenta*, p. 167.

From the axiom that only 'like can act upon like,' Anaxagoras formed his *homœomeriæ*. Democritus accepted the axiom, but gave it a wider application. If only like can act upon like, said he, then must all things be alike *in esse*; and the only differences are those of phenomena, *i. e.* of manifestation; these depend on combination and arrangement.

Atomism is homœomerianism stripped of qualities. It is therefore the system of Anaxagoras greatly improved.

The Atomism of Democritus has not been sufficiently appreciated as a speculation. Leibnitz, many centuries afterwards, was led to a doctrine essentially similar; his celebrated 'Monadologie' is but Atomism, with a new terminology. Leibnitz called his Monad a *force*, which to him was the *prima materia*. Democritus also denied that atoms had any weight; they had only force, and it was the impulsion given by superior force which constituted weight. It is worthy of remark that not only did these thinkers concur in their doctrine of atomism, but also, as we have seen, in their doctrine of the origin of knowledge: a coincidence which gives weight to the supposition that in both minds one doctrine was dependent on the other.*

Attempts have been made, from certain expressions attributed to Democritus, to deduce an Intelligence, somewhat similar to that in the Anaxagorean doctrine, as the Formative Principle. But the evidence is so small and so questionable, that we refrain from pronouncing on it. Certain it is that he attributed the formation of things to Destiny; but whether that Destiny was intelligent or not is uncertain.

In conclusion, we may observe that his system was an advance on that of his predecessors. In the two great points of psychology and physics, which we have considered at length, it is impossible to mistake both a very decided progress, and the opening of a new line in each department.

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* Aucune des idées que l'antiquité nous a transmises n'a eu une plus grande ni même une pareille fortune. Il faut que les inventeurs de la doctrine atomistique soient tombés de primo-abord, ou sur la clef même des phénomènes naturels, ou sur une conception que la constitution de l'esprit humain lui suggère inévitablement dans les efforts qu'il fait pour saisir la clef des phénomènes naturels.—COURNOT: *Traité de l'Enchaînement des Idées fondamentales dans les Sciences et dans l'Histoire*, 1861, i. 245.

SUMMARY OF THE TWO FIRST EPOCHS.

In the various attempts of Philosophy which we have hitherto followed, three remarkable results have been attained, and these contain, as it were, the germs of all subsequent speculation. First, the disengagement of thought from theological bias, and the endeavour to find in things themselves an explanation of their various changes.* It was an objective aim though the subjective Method was employed. It was a failure, because the Method was incompetent.

'During the century and a half between Thales and the beginning of the Peloponnesian War,' says Mr. Grote, 'we have passed in review twelve distinct schemes of philosophy. Of most of these it may be fairly said that each speculated upon nature in an original vein of his own. Anaximenes and Diogenes, Xenophanes and Parmenides, Leukippus and Demokrites may indeed be coupled together as kindred pairs, yet by no means in such a manner that the second of the two is a mere disciple and copyist of the first. Such abundance and variety of speculative genius and invention is one of the most remarkable facts in the history of the Hellenic mind. The prompting of intelligent curiosity, the thirst for some plausible hypothesis to explain the Kosmos and its generation, the belief that a basis might be found in the Kosmos itself apart from those mythical personifications which dwelt both in the popular mind and in the poetical Theogonies, the mental effort required to select some known agency and to connect it by a chain of reasoning with the result, all this is a new phenomena in the human mind.' *

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* 'Realismus war die erste Denkart. Alles Philosophiren geht davon aus einige Merkmale unter welchen die Dinge gedacht werden abzusondern und ihren Grund aufzusuchen zuerst in dem Zusammengesetzten selbst, in den Objecten, nicht in dem Verstande, der den Begriff des Objects erzeugt hat.'—TENNEMANN: *Gesch. der Phil.* i. 46.

The Second Result was a conviction of the uncertainty of Knowledge, dependent upon the Senses; and the consequent necessity of a thorough investigation of the tools with which any further attempt could be made. The failure of philosophers in solving the problem led them to examine the causes of the failure. From investigating cosmical facts they turned to the investigation of mental facts. Psychology was commenced.

The objective and subjective worlds thus became the domain of Philosophy. Ontology and Psychology were then, as now, its two great objects of research; and were then, as now, investigated on the same Method, with but slightly varying differences in the nature of the conclusions. Democritus is at the standing-point of Leibnitz; Heraclitus is at the standing-point of Hegel: a striking lesson of the incompetence of the Method!

The Third Result is the institution of Dialectics. The investigation into the sources and validity of Knowledge having proved the Senses to be fallacious and the Reason fallible, led to the necessity of a criticism of the modes of human thought, and a systematic exposition of the sources of error. Logic, or the science of philosophical tools, thus took its place beside Ontology and Psychology.

In these three departments all Philosophy is comprised. And these three were all evolved during the century and a half we have just surveyed. Our future course will make us acquainted with various changes of aspect, with various combinations and modifications of the Elements, but with no change in the nature of the problems, and with no change in the spirit of the search.

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* GROTE: *Plato*, i. 89.

THIRD EPOCH.

The first crisis. The insufficiency of Philosophy to solve the problem of Existence and to establish a basis of certitude produces a sceptical indifference.

THE SOPHISTS.

§ I. What were they?

THE Sophists are a much calumniated race. That they should have been so formerly is not surprising; that they should be so still, is an evidence that historical criticism is yet in its infancy. In raising our voices to defend them we are aware of the paradox; but looked at nearly, the paradox is greater on the side of those who credit and repeat the traditional account. In truth, we know of few charges so unanimous yet so paradoxical as that brought against the Sophists.* It is as if mankind had consented to judge of Socrates by the representation of him in *The Clouds*. The caricature of Socrates by Aristophanes is quite as near the truth as the caricature of the Sophists by Plato; † with this difference, that in the one case it was inspired by political, in the other by speculative antipathy.

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* It is proper to state that the novel view of the position and character of the Sophists advanced in this Chapter was published five years before the admirable Chapter of Mr. Grote's *History of Greece*, wherein that erudite and thoughtful writer brings his learning and sagacity to the most thorough elucidation of the question it has yet received. In claiming priority in this point of historical criticism, it is right for me to acknowledge that Mr. Grote substantiates his view with overwhelming force of argument and citation; and in revising the present Chapter I have been much indebted to his criticisms and citations.

† See in particular that amusing dialogue the *Euthydemus*, which is quite as exaggerated as Aristophanes.

On the Sophists we have only the testimony of antagonists; and the history of mankind clearly proves that the enmities which arise from difference of race and country are feeble compared with the enmities which arise from difference of creed: the former may be lessened by contact and intercourse; the latter are only aggravated. Plato had every reason to dislike the Sophists and their opinions; he therefore lost no occasion of ridiculing the one and misrepresenting the other. And it is worthy of especial remembrance that this hostility was peculiarly Platonic, and *not* Socratic; for, as Mr. Grote reminds us, there is no such marked antithesis between Socrates and the Sophists in the biographical work of Xenophon. Plato, however, and those who followed Plato, misrepresented the Sophists, as in all ages antagonists have misrepresented each other.

The Sophists were wealthy; the Sophists were powerful; the Sophists were dazzling, rhetorical, and not profound. Interrogate human nature—above all, the nature of philosophers—and ask what will be the sentiment entertained respecting these Sophists by their rivals. Ask the solitary thinker what is his opinion of the showy, powerful, but shallow rhetorician who usurps the attention of the world. The man of convictions has at all times a superb contempt for the man of mere oratorical or dialectical display. The thinker knows that the world is ruled by Thought; yet he sees Expression gaining the world's attention. He knows perhaps that he has within him thoughts pregnant with human welfare; yet he sees the giddy multitude intoxicated with the enthusiasm excited by some plausible fallacy, clothed in persuasive language. He sees through the fallacy, but cannot make others as clear-sighted. His warning is unheeded; his wisdom is spurned; his ambition is frustrated; the popular idol is carried onward in triumph. The neglected thinker would not be human if he bore this with equanimity. He does not. He is loud and angry in lamenting the fate of a world that can be so led; loud and angry in his contempt of one who could so lead it. Should he become the critic or historian of his age, what exactness ought we to expect in his account of the popular idol?

Somewhat of this kind was the relation in which the Sophists and Philosophers stood to each other.

The Sophists were hated by some because they were powerful, by others because shallow; and were misrepresented by all. In later times their antagonism to Socrates has brought them ill-will; and this ill-will is strengthened by the very prejudice of the name. Could a Sophist be other than a cheat and a liar? As well ask, could a Devil be other than Evil? In the name of Sophist odious qualities are implied, and this implication perverts our judgment. Call the Sophists professors of rhetoric, which is their truest designation, and examine their history; it will then produce a very different impression.

Much discussion has been devoted to the meaning of the word Sophist, and to the supposed condemnation it everywhere carried. 'A Sophist, in the genuine sense of the word, was a wise man, a clever man, one who stood prominently before the public as distinguished for intellect or talent of some kind. Thus Solon and Pythagoras are both called Sophists; Thamyras, the skilful bard, is called a Sophist; Socrates is so denominated, not merely by Aristophanes, but by Æschines. Aristotle himself calls Aristippus, and Xenophon calls Antisthenes, both of them disciples of Socrates, by that name. Xenophon in describing a collection of instructive books calls them the writings of the old poets and Sophists. Plato is alluded to as a Sophist even by Isocrates; Isocrates himself was harshly criticised as a Sophist, and defends both himself and his profession. Lastly, Timon, who bitterly satirised all the philosophers, designated them all, including Plato and Aristotle, by the general name of Sophists.'* This proves the vagueness with which the term was employed: a like discrepancy might be detected in the modern use of the word 'metaphysician,' which is a term of honour or reproach according to the speaker. Zeller says that the specific name of Sophist at first merely designated one who taught philosophy for pay. The philosophy might be good or bad; the characteristic designated by the epithet Sophistical was its demand of money-fees. The narrower meaning was given it by Plato and Aristotle.* It matters little however what was the meaning attached to the name. Even were it proved that 'Sophist' was as injurious in those days as 'Socialist' in our own, it would no more prove that the Sophists really taught the doctrines attributed to them than the mingled terror and detestation with which 'Socialist doctrines' are described in almost all modern journals, pamphlets, speeches, and reviews, prove that the Socialists really teach what is there imputed to them.

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* Grote, *Hist. of Greece*, viii. 480.

We said it was a paradox to maintain that the Sophists really promulgated the opinions usually attributed to them; and by this we mean that not only are some of those opinions nothing but caricatures of what was really maintained, but also that in our interpretation of the others we grossly err, by a confusion of Christian with Heathen views of morality. Moderns cannot help regarding as fearfully immoral, ideas which by the Greeks were regarded as moral, or at least as not disreputable. For instance: the Greek orators are always careful to impress upon their audience, that in bringing a charge against any one they are actuated by the strongest personal motives; that they have been injured by the accused; that they have good honest hatred as a motive for accusing him. Can anything be more opposite to Christian feeling? A Christian accuser is just as anxious to extricate himself from any charge of being influenced by personal considerations, as the Greek was of making the contrary evident. A Christian seeks to place his motive to the account of abstract justice; and his statement would be received with great suspicion were it known that a personal feeling prompted it. The reason of this difference is that the Christian Ethics do not countenance vengeance; the Greek Ethics not only countenanced vengeance, but very much reprobated *informers*: consequently, whoever made an accusation had to clear himself from the ignominy of being an informer, and to do so he showed his personal motives.

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* ZELLER: *Philosophie der Griechen*, erster Theil, 1856, p. 750.

This example will prepare the reader to judge, without precipitancy, the celebrated boast attributed to the Sophists, that they could 'make' the worse appear the better reason.' This was said to be the grand aim of their endeavours. This was called their avowed object. To teach this art, it is said, they demanded enormous sums; to learn it enormous sums were readily given, and given by many.

These assertions are severally false. We will take the last first. It is not true that enormous sums were demanded. Isocrates affirms that their gains were never very high, but had been maliciously exaggerated, and were very inferior to the gains of dramatic actors. Plato, a less questionable authority on such a point, makes Protagoras describe his system of demanding remuneration: 'I make no stipulation beforehand; when a pupil parts from me, I ask from him such a sum as I think the time and the circumstances warrant; and I add that if he deems the demand too great, he has only to make up his own mind what is the amount of improvement which my company has procured to him, and what sum he considers an equivalent for it. I am content to accept the sum so named by himself, only requiring him to go into a Temple and make oath that it is his sincere belief. Plato objects to this, and to every other mode of 'selling wisdom;' but, as Mr. Grote remarks, 'such is not the way in which the corrupters of mankind go to work.'

But let us waive the question of payment, to consider the teaching paid for. The Sophists, it is said, and believed, boasted that they could teach the art of making the worse appear the better reason; and in one sense this is true; but understanding this art as moderns have understood it, and thereby forming our notion of the Sophists, let us ask, Is it credible that such an art should have been avowed, and, being avowed, should be rewarded, in a civilised state? Let us think, for an instant, of what are its moral, or rather its immoral, consequences. Let us reflect how utterly it destroys all morality; how it makes the very laws but playthings for dialectical subtlety. Then let us ask whether, as we understand it, any State could have allowed such open blasphemy, such defiance of the very fundamental principle of honesty and integrity, such demolition of the social contract?

Could any State do this? and was Athens that State? We ask the reader to realise for himself some notion of the Athenians as citizens, not merely as statues; to think of them as human beings, full of human passions, not simply as architects, sculptors, poets, and philosophers. Having done this, we ask him whether he can believe that these Athenians would have listened to a man proclaiming all morality a farce, and all law a quibble—proclaiming that for a sum of money he could instruct any one how to make an unjust cause appear a just one? Would not such a proclamation be answered with a shout of derision, or of execration, according to the belief in his sincerity? Could any charlatan, in the corruptest age, have escaped being stoned for such effrontery? Yet the Sophists were wealthy, by many greatly admired, and were selected as ambassadors on very delicate missions. They were men of splendid talents; of powerful connections. Around them flocked the rich and noble youth of every city they entered. They were the intellectual leaders of their age. If they had been what their adversaries describe them, Greece could only have been an earthly Pandemonium, where Belial was King.

To believe this is beyond our power. Indeed such a paradox it would be frivolous to refute, had it not been maintained for centuries. Some have endeavoured to escape it by maintaining that the Sophists were held in profound contempt; and certain passages are adduced from Plato in proof thereof. But the fact appears to us to be the reverse of this. The wealth and power of the Sophists—the very importance implied in Plato's constant polemic against them—prove that they were not objects of contempt. Objects of aversion they might be to one party: the successful always are. Objects of contempt they might be, to some sincere and profound thinkers. The question here however is not one relating to individuals, but to the State. It is not whether Plato despised Gorgias, but whether Athens allowed him to teach the most unblushing and undisguised immorality. There have been daring speculators in all times. There have been men shameless and corrupt. But that there has been any speculator so daring as to promulgate what he knew to be grossly immoral, and so shameless as to avow it, is in such contradiction to our experience of human nature as at once to be rejected.*

It is evident, therefore, that in teaching the art of 'making the worse appear the better reason,' the Sophists were not guilty of anything held to be reprehensible; however serious thinkers, such as Plato and Aristotle, might detest the philosophy from which it sprang.

But if this art was not reprehensible, except to severe minds, such as Plato and Aristotle, it is clear that it could not have been the art which its antagonists and defamers have declared it to be. If, as we have shown, universal human nature would have rebelled against a teaching which was avowedly immoral, the fact that the Sophists were not stoned, but were highly considered and well paid, is proof that their teaching was either not what we are told it was, or that such teaching was not considered immoral by the Greeks. Both of these negatives will be found true. The teaching of the Sophists was demonstrably *not* what is usually attributed to them, and what they *did* teach was very far from being considered as immoral. Let us consider both these points.

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* We are told by SEXTUS that Protagoras was condemned to death by the Athenians because he professed himself unable to say whether the Gods existed, or what they were, owing to the insufficiency of knowledge. Yet the Athenians are supposed to have tolerated the Sophists as they are understood by moderns

In the first place Mr. Grote has shown beyond dispute that the Sophists had *no* doctrine in common; they formed no sect or school of thought, such as modern Germans indicate under the name of *Die Sophistik.* There never was a *Sophistik.* Each teacher had his own doctrinal views, and was not more bound to the opinions of the others than a modern Barrister is bound to share the theology of the Bar, or than a modern teacher of Elocution is bound to vote on the same side with all other professors. No sooner is this fact apprehended, than the absurdity of attributing to 'the Sophists' opinions expressed by one Sophist, and that too in a caricature by Plato, is at once apparent. Moreover the absurdity of talking of the 'sophistical *doctrine*' becomes apparent, and we are forced to speak only of the 'sophistical *art*,' reserving for any special animadversion the special name of the offending sinner.

The Sophists taught the art of disputation. The litigious quibbling nature of the Greeks was the soil on which an art like that was made to flourish. Their excessive love of lawsuits is familiar to all versed in Grecian history. The almost farcical representation of a lawsuit given by Æschylus in his otherwise awful drama, *The Eumenides,* shows with what keen and lively interest the audience witnessed even the very details of litigation. For such an appetite food would not long be wanting. Corax and Tisias wrote precepts of the art of disputation. Protagoras followed with dissertations on the most remarkable points of law; and Gorgias composed a set accusation and apology for every case that could present itself. People, in short, were taught to be their own advocates.

This was by no means an immoral art. If it *might* or *did* lead to immorality, few Greeks would have quarrelled with an art so necessary. 'Without some power of persuading or confuting, of defending himself against accusations, or, in case of need, accusing others, no man could possibly hold an ascendant position. He had probably not less need of this talent for private informal conversations to satisfy his own political partisans, than for addressing the public assembly formally convoked. Even commanding an army or a fleet, without any laws of war or habit of discipline, his power of keeping up the good-humour, confidence, and prompt obedience of his men, depended not a little on his command of speech. Nor was it only to the leaders in political life that such an accomplishment was indispensable. In all democracies, and probably in several Governments which were not democracies but oligarchies of an open character, the courts of justice were more or less numerous, and the procedure oral and public; in Athens especially the Dicasteries were both very numerous and were paid for attendance. Every citizen had to go before them in person, without being able to send a paid advocate in his place, if he either required redress for wrong offered to himself, or was accused of wrong by another. There was no man therefore who might not be cast or condemned, or fail in his own suit, even with right on his side, unless he possessed some power of speech to unfold his case to the Dicasts, as well as to confute the falsehoods and disentangle the sophistry of an opponent. To meet such liabilities, from which no citizen, rich or poor, was exempt, a certain training in speech became not less essential than a certain training in arms.'* Thus was it that even quibbling ingenuity, 'making the worse appear the better reason,' became a sort of virtue, because it was obtained only by that mastery over argument which was the Athenian's ambition and necessity. *We* can send a paid advocate to quibble for us, and do not therefore need such argumentive subtlety. But let us ask, are barristers pronounced the 'corruptors of mankind,' and is their art called the art of 'making the worse appear the better reason,' as if that, and that alone, were the purport of all pleading? Yet, in defending a criminal, does not every barrister exert his energy, eloquence, subtlety, and knowledge 'to make the worse appear the better reason'? Do we reprobate Sergeant Talfourd or Sir Frederick Thesiger, if they succeed in gaining their client's cause, although that cause be a bad one? On the contrary, the badness of the cause makes the greatness of the triumph.

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* GROTE, viii. 463–4. Compare HEGEL, *Gesch. d. Phil.* ii. 11, 20.

Now let us suppose Sergeant Talfourd to give lessons in forensic oratory; suppose him to announce to the world, that for a certain sum he would instruct any man in the whole art of exposition and debate, of the interrogation of witnesses, of the tricks and turning-points of the law, so that the learner might become his own advocate: this would be contrary to legal etiquette; but would it be immoral? Grave men might, perhaps, object that Mr. Talfourd was offering to make men cheats and scamps, by enabling them to make the worse appear the better reason. But this is a consequence foreseen by grave men, not acknowledged by the teacher. It is doubtless true that owing to oratory, ingenuity, and subtlety, a scamp's cause is sometimes gained; but it is also true that many an honest man's cause is gained, and many a scamp frustrated, by the same means. If forensic oratory does sometimes make the worse appear the better reason, it also makes the good appear in all its strength. The former is a necessary evil, the latter is the very object of a court of justice. 'If,' says Callicles, in defence of Gorgias, to Socrates, 'any one should charge you with some crime which you had not committed, and carry you off to prison,.you would gape and stare, and would not know what to say; and, when brought to trial, however contemptible and weak your accuser might be, if he chose to indict you capitally, you would perish. Can this be wisdom, which, if it takes hold of a gifted man, destroys the excellence of his nature, rendering him incapable of preserving himself and others from the greatest dangers, enabling his enemies to plunder him of all his property, and reducing him to the situation of those who, by a sentence of the Court, have been deprived of all their rights?'

If it be admitted that Sergeant Talfourd's instruction in forensic oratory would not be immoral, however unusual, we have only to extend the sphere and include politics, and represent to ourselves the democratic state of Athens, where demagogues were ever on the alert, and we shall be fully persuaded that the art of the Sophists was not considered immoral; and, as further proof, we select a passage in Plato's *Republic*, an unexceptionable source.

Socrates, speaking of the mercenary teachers whom the people called Sophists, says:—'These Sophists teach them only the *things which the people themselves profess in assemblies*: yet this they call wisdom. It is as if a man had observed the instincts and appetites of a great and powerful beast, in what manner to approach it, how or why it is ferocious or calm, what cries it makes, what tones appease and what tones irritate it; after having learnt all this, and calling it wisdom, commenced teaching it without any knowledge of what is good, just, shameful and unjust among these instincts and appetites; but calling that good which flatters the animal, and that bad which irritates it; because he knows not the difference between what is good in itself and that which is only relatively good.'*

There is the usual vein of caricature in this description (which is paraphrased in the *Quarterly Review*,† and there given as if the undoubted and unexaggerated doctrines of the Sophists); but it very distinctly sets forth the fact that the Sophists did not teach anything contrary to public morals, however their art may have offended austere teachers. Indeed the very fact of their popularity would prove that they did but respond to a public want; and because they responded to this want they were paid by the public in money. Plato constantly harps upon their being mercenaries; but he was wealthy, and could afford such sarcasms. The Greeks paid their Musicians, Painters, Sculptors, Physicians, Poets, and Teachers in Schools; why therefore should they not pay their Philosophers? Zeno of Elea was paid; so was Democritus; it is true that both of these have been sometimes included amongst the Sophists. We see nothing more derogatory in the acceptance of money by Philosophers than by Poets; and we know how the latter stipulated for handsome payment.

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* PLATO, *Rep.* vi. 291.

† No. xlii. p 288

Having done our best to show that the 'Sophistical art'—that alone which the Sophists had in common—was not immoral, or at any rate was not regarded as immoral by the Greeks, we will now see how the case stands with respect to the old accusation of their having corrupted the Athenian youth, and of their doctrines being essentially corrupting.

That the Athenians did not consider the Sophists as corruptors of youth is unequivocally shown in two facts: they did not impeach the Sophists, and they *did* impeach Socrates. When Anaxagoras the philosopher, and Protagoras the Sophist, 'sapped the foundations of morality' by expressing opinions contrary to the religion of Athens, they were banished; but who impeached Gorgias, or Hippias, or Prodicus?

The art however may have been essentially corrupting, although to contemporaries it did not appear so. We believe it was so, if it is to be made responsible for all the consequences which can logically be deduced from it. But 'logical consequences' are unjust standards. Men are not responsible for what others may consider their doctrines 'lead to.' It was on the ground of such remote deduction that Socrates was put to death; and on such ground the Sophists have been the byeword of reproach. Mr. Grote grapples directly with the fact where he declares Athens at the close of the Peloponnesian war was not more corrupt than Athens in the days of Miltiades and Aristides; and had it been more corrupt, we should demand quite other evidence than that usually alleged, before believing the corruption due to the Sophists.

Why then did Plato speak of the Sophists with so much asperity? Why did he consider their teaching so dangerous? Because he differed from them *in toto*. He hated them for the same reason that Calvin hated Servetus; but having a more generous nature than Calvin, his hatred of their doctrines did not assume so disgraceful a form. If his allegations are to condemn the Sophists, they must equally condemn all the public men of that day. 'Whoever will read either the *Gorgias* or the *Republic*, will see in how sweeping and indiscriminate a manner he passes the sentence of condemnation. Not only the Sophists and all the Rhetors, but all the Musicians and either Dithyrambic or Tragic Poets, all the Statesmen past as well as present, not excepting even the great Pericles, receive from his hand one common stamp of dishonour.'* But so far is he from considering the Sophists as peculiar corruptors of Athenian morality 'that he distinctly protests against that supposition in a remarkable passage of the *Republic.* It is, he says, the whole people or the society, with its established morality, intelligence, and tone of sentiment, which is intrinsically vicious; the teachers of such a society must be vicious also, otherwise their teaching would not be received; and even if their private teaching were ever so good, its effect would be washed away, except in some few privileged natures, by overwhelming influences.'†

The truth is that, in as far as the Sophists taught any doctrine at all, their doctrine was ethical; and to suppose men teaching immoral ethics, *i. e.* systems of morality known by them to be immoral, is absurd. To clear up this point we must endeavour to ascertain what that doctrine was.

Plato's account is on the face of it a caricature, since it is impossible that any man should have seriously entertained such a doctrine. What Protagoras and Gorgias thought is not given, but only a misrepresentation of what they thought. Plato seizes hold of one of their doctrines, and, interpreting it in his own way, makes it lead to the most outrageous absurdity and immorality. This is as if Berkeley's doctrine had been transmitted to us by Beattie. Berkeley, it is well known, denied the existence of the external world, resolving it into a simple world of ideas. Beattie taunted him with not having followed out his principles, and with not having walked over a precipice. This was a gross misrepresentation: an *ignoratio elenchi*; Beattie misunderstood the argument, and drew conclusions from his misunderstanding. Now, suppose him to have written a dialogue on the plan of those of Plato: suppose him making Berkeley expound his argument in the way he (Beattie) interpreted it, with a flavour of exaggeration for the sake of effect, and of absurdity for the sake of easy refutation: how would he have made Berkeley speak? Somewhat thus:—'Yes, I maintain that there is no such external existence as that which men vulgarly believe in. There is no world of matter, but only a world of ideas. If I were to walk over a precipice, I should receive no injury: it is only an ideal precipice.'

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* GROTE, viii. 537.

† *Ibid.*, p. 59. The passage referred to is *Repub.* vi. 492 (page 388, ed. Bekker), and the Sophists are mentioned by name as the teachers of whom it treats.

This is the interpretation of a Beattie; how true it is most men know: it is, however, quite as true as Plato's interpretation of the Sophists. From Berkeley's works we can convict Beattie. Plato we can convict from experience of human nature: experience tells us that no man, far less any set of men, could seriously, publicly, and constantly broach doctrines thought to be subversive of all morality, without incurring the heaviest penalties. To broach immoral doctrines with the faintest prospect of success, a man must do so in the name of rigid morality. To teach immorality, and openly to avow that it is immoral, was, according to Plato, the office of the Sophists;* a statement which carries with it its own contradiction.

§ II. Protagoras.

Nothing can be more erroneous than to isolate the Sophists from previous teachers, as if they were no direct product of the speculative efforts which preceded them. They illustrate the crisis at which philosophy had arrived. They took the *negative*, as Socrates took the *positive* issue out of the dilemma.

Protagoras, the first who is said to have avowed himself a

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* This passage in the *Protagoras* is often referred to as a proof of the shamelessness of the Sophists, and sometimes of the ill-favour with which they were regarded. It is only a proof of Plato's tendency to caricature.

Sophist, was born at Abdera, where Democritus first noticed him as a porter, who showed great address in inventing the knot.* The consequence was that Democritus gave him instructions in Philosophy. The story is apocryphal, but indicates a connection to have existed between the speculations of the two thinkers. Let us suppose Protagoras to have accepted the doctrine of Democritus; with him to have rejected the unity of the Eleatics and to have maintained the existence of the Many. From Democritus he would also learn that thought is sensation, and that all knowledge is therefore phenomenal. There were two theories in the Democritean system which he could not accept, viz. the *Atomic* and *Reflective.* These two imply each other. Reflection is necessary for the idea of Atoms; and it is from the idea of Atoms not perceived by the sense, that the existence of Reflection is proved. Protagoras rejected the Atoms, and would therefore reject Reflection. He said that Thought was Sensation, and all knowledge consequently individual.

Did not the place of his birth no less than the traditional story lead one to suppose some connection with Democritus, we might feel authorized to adopt certain expressions of Plato, and consider Protagoras to have derived his doctrine from Heraclitus. He certainly resembles the last-named in the main results to which his speculations led him. Be that as it may, the fact is unquestionable, that he maintained the doctrine of Thought being identical with and limited to Sensation. Now, this doctrine implies that everything is true *relatively*—every sensation is a true sensation; and, as there is nothing but sensation, knowledge is inevitably fleeting and imperfect. In a melancholy mind, as in that of Heraclitus, such a doctrine would deepen sadness, till it produced despair. In minds of greater elasticity, in men of greater confidence, such a doctrine would lead to an energetic scepticism.

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* What the precise signification of τύλη is we are unable to say. A porter's knot, such as is now used, is the common interpretation. Perhaps Protagoras had contrived a sort of wooden machine such as the glaziers use, and which is used by the porters in Greece and Italy to this day.

In Protagoras it became the formula: 'Man is the measure of all things.'

Sextus Empiricus gives the psychological doctrine of Protagoras very explicitly; and his account may be received without suspicion. We translate a portion of it:—

'Matter, says Protagoras, is in a perpetual flux;* whilst it undergoes augmentations and losses, the senses also are modified, according to the age and disposition of the body. He said, also, that the reasons of all phenomena (appearances) resided in matter as *substrata* (τοὺς λόγους πάντων τῶν φαινομένων ὑποκεῖσθαι ἐν τῇ ὕλῃ); so that matter, in itself, might be whatever it appeared to each. But men have different perceptions at different times, according to the changes in the thing perceived. Whoever is in a healthy state perceives things such as they appear to all others in a healthy state, and *vice versâ*. A similar course holds with respect to different ages, as well as in sleeping and waking. Man is therefore the criterion of that which exists; all that is perceived by him exists, that which is perceived by no man does not exist.' †

This statement of the important philosophical truth, the Relativity of Human Knowledge, which seems first to have found its distinct formula in Protagoras, although the current of speculation had long been tending that way, is historically remarkable. We cannot ascertain in how far Protagoras had mastered its intellectual significance, that is, its psychological foundation and its sceptical reach; but we know that he had mastered its practical significance, that is the instigation to cease philosophical speculation, and seek only effective agreement among men.

Whether Protagoras or any other of the Sophists clearly saw all that acute metaphysicians have since seen in his formula, may be doubted. But there is no doubt that his formula was one which forcibly directed men's attention to the cardinal question of all philosophizing. Plato and Aristotle both attempted a refutation of the formula, both attempted to construct some Criterion or standard of truth. They failed, I think; but only on the assumption of their having succeeded could philosophy have been continued.

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* Τὴν ὕλην ῥευστὴν εἶναι, an expression which, if not borrowed by SEXTUS from PLATO, would confirm the conjecture above respecting Heraclitus, as the source of Protagoras's system.

† SEXTUS EMPIRICUS: *Hypot. Pyrrhon.* Paris 1621, p. 44.

The formula marks a crisis. It announced the vanity of philosophizing. But Protagoras was not satisfied with this purely negative result. If philosophy was to be abjured, something must take its place. Scepticism could not suffice for energetic souls.

The difference between the Sophists and the Sceptics was this: they were both convinced of the insufficiency of all knowledge, but the Sceptics contented themselves with the conviction, while the Sophists, satisfied with the vanity of all endeavour to penetrate the mysteries of the universe, began to consider their relations to other men: they devoted themselves to politics and rhetoric.* If there was no possibility of Truth, there only remained the possibility of Persuasion. If one opinion were as true as another,—that is, if neither were true,—it was nevertheless desirable, for the sake of Society, that certain opinions should prevail; and, if Logic was powerless, Rhetoric was efficient. Hence Protagoras is made to say, by Plato, that the wise man is the physician of the soul: he cannot indeed induce truer thoughts into the mind, since all thoughts are equally true; but he can induce healthier and more profitable thoughts. He can in the same way heal Society, since by the power of oratory he can introduce good useful sentiments in the place of those base and hurtful.†

This doctrine may be false; but is it not a natural consequence of the philosophy of the epoch? It may be immoral; but is it necessarily the bold and shameless immorality attributed to the Sophists? To us it appears to be neither more nor less than the result of a sense of the radical insufficiency of knowledge. Protagoras had spent his youth in the study of philosophy; he had found that study vain and idle; he had utterly rejected it, and had turned his attention elsewhere. A man of practical tendencies, he wanted a practical result. Failing in this, he sought another path, firmly impressed with the necessity of having something more definite wherewith to enter the world of action. Plato could see no nobler end in life than that of contemplating Being,—than that of familiarizing the mind with the eternal Good, the Just, and the Beautiful,—of which all goodness, justice, and beautiful things were the images. With such a view of life it was natural that he should despise the scepticism of the Sophists. This scepticism is clearly set forth in the following passage from the speech of Callicles, in Plato's *Gorgias*:—'Philosophy is a graceful thing when it is moderately cultivated in youth; but, if any one occupies himself with it beyond the proper age, it ruins him; for, however great may be his natural capacity, if he philosophizes too long he must of necessity be inexperienced in all those things which one who would be great and eminent must be experienced in. He must be unacquainted with the laws of his country, and with the mode of influencing other men in the intercourse of life, whether private or public, and with the pleasures and passions of men; in short, with human characters and manners. And when such men are called upon to act, whether on a private or public occasion, they expose themselves to ridicule, just as politicians do when they come to your conversation, and attempt to cope with you in argument; for every man, as Euripides says, occupies himself with that in which he finds himself superior; that in which he is inferior he avoids, and speaks ill of it, but praises what he excels in, thinking that in doing so he is praising himself. The best thing, in my opinion, is to partake of both. It is good to partake of philosophy by way of education, and it is not ungraceful in a young man to philosophize. But, if he continues to do so when he grows older, he becomes ridiculous, and I feel towards him as I should towards a grown person who lisped and played at childish plays. When I see an old man still continuing to philosophize, I think he deserves to be flogged. However great his natural talents, he is under the necessity of avoiding the assembly and public places, where, as the poet says, men become eminent, and to hide himself, and to pass his life whispering to two or three striplings in a corner, but never speaking out anything great, and bold, and liberal.'

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* See PLATO's definition of the sophistical art, *Sophista*, p. 146.

† *Theætetus*, p. 228.

That Protagoras, no less than Prodicus,* was a teacher of excellent morality, if not of the highest abstract views of the Good, is clearly made out not only in Mr. Grote's work, but in that of Zeller, where the Sophists are unfavourably treated on the whole,† and is indeed supported by the testimony of Plato and Xenophon. The ethics of the Sophists may not have been of a very lofty kind, but they were considered, even by enemies, to be adapted to the exigencies of the day. They doubted the possibility of Philosophy; they were assured only of the advantage of Oratory. In their visits to various cities they could not fail to remark the variety of laws and ordinances in the different States. This variety impressed them with a conviction that there were no such things as Right and Wrong by nature, but only by convention. This, therefore, became a fundamental precept with them. It was but a corollary of their dogma respecting Truth. For man there was no Eternal Right because there was no Eternal Truth; τὸ δίκαιον καὶ τὸ αἰσχρὸν οὐ φύσει ἀλλὰ νόμῳ: law was but the law of each city. 'That which appears just and honourable to each city, is so *for that city*, as long as the opinion is entertained,' says Protagoras in the *Theætetus* (p. 229).

This denial of abstract Truth and abstract Justice is easily pushed to absurd and immoral consequences; but we have no evidence that such consequences were maintained by the Sophists. Plato often judges them by such consequences; but independently of the want of any confidence in his representations as faithful, we can often detect in Plato himself evidences of the exaggeration of his general statements. Thus, he on various occasions makes the Sophists maintain that Might is Right. Moderns, who always accept him as positive testimony, have therefore unanimously repeated this statement. Yet, it is obvious that they could not have held this opinion except in a very qualified form. And, in the first Book of the *Republic*, Thrasymachus the Sophist is made to explain his meaning: namely, that Justice is the law ordained by the party which is strongest in the State. Thus, in a democracy the enactments of the people are the laws: these laws are for their advantage: therefore just. Now, in this admission, by Plato, of a qualification of the abstract formula, 'Might is Right,' we see evidence of that formula never having been promulgated by the Sophists; it was only an interpretation by Plato. What they meant was this: All law is but convention: the convention of each State is therefore just *for it*; and, inasmuch as any such convention must necessarily be ordained by the strongest party, *i.e.* must be the will of the many, so we may see that justice is but the advantage of the strongest.

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* Prodicus is specially excepted by ARISTOPHANES in his sweeping condemnation of the Sophists; and indeed the author of the well-known parable, *The Choice of Hercules*, must command the respect even of antagonists.

† ZELLER: *Philos. der Griechen*, i. 775. In one of his notes, ZELLER alludes to STEINHART's doubt respecting the authorship of the Myth, attributed by PLATO to Protagoras, as being 'quite worthy of Plato himself.' This is very characteristic of the ordinary tone of commentators, and we may well ask with ZELLER, 'Aber warum soll er für Protagoras zu gut seyn?'

The foregoing will, we trust, suffice to show that the tenets attributed to them by Plato, are often caricatures, and admit of very different explanation. Well might Gorgias exclaim, on reading the Dialogue which bears his name, 'I did not recognise myself. The young man, however, has great talent for satire.'

The Sophists were the natural production of the opinions of the epoch. In them we see the first energetic protest against the possibility of metaphysical science. This protest however must not be confounded with the protest of Bacon —must not be mistaken for the germ of positive philosophy. It was the protest of baffled minds. The philosophy of the day led to scepticism; but with scepticism no energetic man could remain contented. Philosophy was therefore denounced, not because a surer, safer path of inquiry had been discovered, but because philosophy was found to lead nowhither. The scepticism of the Sophists was a scepticism, with which no great speculative intellect could be contented. Accordingly with Socrates philosophy again re-asserted her empire.

FOURTH EPOCH.

Philosophy emerges from the crisis by a new development of Method—the application of Dialectics as a negative process preparatory to the positive foundation of Inductive inquiry.

SOCRATES.

§ I. The Life of Socrates.

WHILST the brilliant Sophists were gaining money and renown by protesting against Philosophy, and, accepting as the basis of all arguments the ideas generally prevalent on great topics, taught the arts of persuasion as the only practical outcome of philosophy, there suddenly appeared amongst them a strange antagonist. The picture he presents in an ordinary mind is a perfect contrast to them. They had slighted Truth; they had denied her. He had made her his mistress; and, with patient labour, with untiring energy, did his large wise soul toil after perfect communion with her. They had deserted Truth for money and renown. He had remained constant to her in poverty. They professed to teach everything. He only knew that he knew nothing; and denied that anything could be taught. Yet he believed he could be of service to his fellow-men; not by teaching, but by helping them to learn. His mission was to examine the thoughts of others. This he humorously explained by reference to his mother's profession, namely that of a midwife. What she did for women in labour he could do for men pregnant with ideas. He was an accoucheur of ideas. He assisted ideas in their birth, and, having brought them into light, he examined them, to see if they were fit to live: if true, they were welcomed; if false, destroyed. And for this assistance he demanded no pecuniary recompense, but stedfastly refused every bribe of the kind.

He was the declared questioner of all men who were renowned for wisdom, or any intellectual eminence; and they were somewhat puzzled by their questioner. Who is he?—Socrates, the son of Sophroniscus. What does he?—Converse. For what purpose?—To expose error. Simply that?—That and no more. Has he no truth to put in the place of error?—None; except the truth that man is ignorant and fancies himself wise.

Some gorgeous Sophists, in their flowing robes, followed by crowds of eager listeners, treated the poor and humbly-clad Socrates with ineffable contempt. He was rude and ungainly in his movements; unlike all respectable citizens in his habits. Barefoot, he wandered about the streets of Athens absorbed in thought; sometimes he stood still for hours, fixed in meditation. Every day he strolled into the market-place, and disputed with all who were willing. In appearance he resembled a Silenus. His flattened nose, with wide and upturned nostrils, his projecting eyeballs, his thick and sensual lips, his squab figure and unwieldy belly, were all points upon which ridicule might fasten. Yet when this Silenus spoke there was a witchery in his tongue which fascinated those whom his appearance had disgusted; and Alcibiades declared that he was forced to stop his ears and flee away, that he might not sit down beside Socrates and 'grow old in listening to his talk.' Let us hear Alcibiades describe him.*

'I will begin the praise of Socrates by comparing him to a certain statue. Perhaps he will think that this statue is introduced for the sake of ridicule; but I assure you that it is necessary for the illustration of truth. I assert then, that

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* PLATO: *Symposium*, SHELLEY's translation.

Socrates is exactly like those Silenuses that sit in the sculptors' shops, and which are carved holding flutes or pipes, but which, when divided in two, are found to contain withinside the images of the gods. I assert that Socrates is like the Satyr Marsyas; that your form and appearance are like these Satyrs, I think that even you will not venture to deny; and how like you are to them in all other things, now hear. Are you not scornful and petulant? If you deny this, I will bring witnesses. Are you not a piper, and far more wonderful a one than he? for Marsyas, and whoever now pipes the music that he taught, that music which is of heaven, and described as being taught by Marsyas, enchants men through the power of the mouth; for, if any musician, be he skilful or not, awakens this music, it alone enables him to retain the minds of men, and from the divinity of its nature makes evident those who are in want of the Gods and initiation. You differ only from Marsyas in this circumstance, that you effect without instruments, by mere words, all that he can do; for, when we hear Pericles, or any other accomplished orator, deliver a discourse, no one, as it were, cares anything about it. But when anyone hears you, or even your words related by another, though ever so rude and unskilful a speaker, be that person a woman, man, or child, we are struck and retained, as it were, by the discourse clinging to our minds.

'If I was not afraid that I am a great deal too drunk, I would confirm to you by an oath the strange effects which I assure you I have suffered from his words, and suffer still; for, when I hear him speak, my heart leaps up far more than the hearts of those who celebrate the Corybantic Mysteries; my tears are poured out as he talks—a thing I have seen happen to many others beside myself. I have heard Pericles and other excellent orators, and have been pleased with their discourses, but I suffered nothing of this kind; nor was my soul ever on those occasions disturbed and filled with self-reproach, as if it were slavishly laid prostrate. But this Marsyas here has often affected me in the way I describe, until the life which I lead seemed hardly worth living. Do not deny it, Socrates; for I well know that if even now I chose to listen to you, I could not resist, but should again suffer the same effects; for, my friends, he forces me to confess, that while I myself am still in want of many things, I neglect my own necessities, and attend to those of the Athenians. I stop my ears, therefore, as from the Sirens, and flee away as fast as possible, that I may not sit down beside him and grow old in listening to his talk; for this man has reduced me to feel the sentiment of shame, which I imagine no one would readily believe was in me; he alone inspires me with remorse and awe; for I feel in his presence my incapacity of refuting what he says, or of refusing to do that which he directs; but, when I depart from him, the glory which the multitude confers overwhelms me. I escape, therefore, and hide myself from him, and when I see him I am overwhelmed with humiliation, because I have neglected to do what I have confessed to him ought to be done; and often and often have I wished that he were no longer to be seen among men. But, if that were to happen, I well know that I should suffer far greater pain; so that where I can turn, or what I can do with this man, I know not. All this have I and many others suffered from the pipings of this Satyr.

'And observe how like he is to what I said, and what a wonderful power he possesses. I know that there is not one of you who is aware of the real nature of Socrates; but since I have begun, I will make him plain to you. You observe how passionately Socrates affects the intimacy of those who are beautiful, and how ignorant he professes himself to be; appearances in themselves excessively Silenic. This, my friends, is the external form with which, like one of the sculptured Sileni, he has clothed himself; for, if you open him, you will find within admirable temperance and wisdom: for he cares not for mere beauty, but despises more than any one can imagine all external possessions, whether it be beauty, or wealth, or glory, or any other thing for which the multitude felicitates the possessor. He esteems these things, and us who honour them, as nothing, and lives among men, making all the objects of their admiration the playthings of his irony. But I know not if any one of you have ever seen the divine images which are within, when he has been opened and is serious. I have seen them, and they are so supremely beautiful, so golden, so divine and wonderful, that everything which Socrates commands surely ought to be obeyed, even like the voice of a God.

'Many other and most wonderful qualities might well be praised in Socrates, but such as these might singly be attributed to others. But that which is unparalleled in Socrates, is, that he is unlike, and above comparison with, all other men, whether those who have lived in ancient times, or those who exist now; for, it may be conjectured, that Brasidas and many others are such as was Achilles. Pericles deserves comparison with Nestor and Antenor; and other excellent persons of various times may, with probability, be drawn into comparison with each other. But to such a singular man as this, both himself and his discourses are so uncommon, no one, should he seek, would find a parallel among the present or the past generations of mankind; unless they should say that he resembled those with whom I lately compared him; for, assuredly, he and his discourses are like nothing but the Sileni and the Satyrs. At first I forgot to make you observe how like his discourses are to those Satyrs when they are opened; for, if any one will listen to the talk of Socrates, it will appear to him at first extremely ridiculous; the phrases and expressions which he employs fold around his exterior the skin, as it were, of a rude and wanton Satyr. He is always talking about brass-founders, and leather-cutters, and skin-dressers: and this is his perpetual custom, so that any dull and unobservant person might easily laugh at his discourse. But if any one should see it opened, as it were, and get within the sense of his words, he would then find that they alone of all that enters into the mind of man to utter, had a profound and persuasive meaning, and that they were most divine; and that they presented to the mind innumerable images of every excellence, and that they tended towards objects of the highest moment, or rather towards all that he who seeks the possession of what is supremely beautiful and good need regard as essential to the accomplishment of his ambition.

'These are the things, my friends, for which I praise Socrates.'

Such a Silenus was the most formidable antagonist that the Sophists had encountered; but this is small praise for him who was hereafter to become one who was to give a new impulse to the human mind, and leave as an inheritance to mankind the grand example of an heroic life devoted to truth and crowned with martyrdom.

Everything about Socrates is remarkable,—personal appearance, moral physiognomy, position, object, method, life and death. Fortunately, his character and his tendencies have been so clearly pictured in the works of Plato and Xenophon, that although the portrait may be flattered we are sure of its general truth.

He was born B.C. 469, the son of Sophroniscus, a sculptor,* and Phænarete, a midwife. His parents, though poor, managed, it is said, to give him the ordinary education. Besides which, he learned his father's art; whether he made any progress in it we are unable to say; probably not, as he relinquished it early. A group of Graces, which tradition attributed to the chisel of Socrates, was exhibited for centuries among the art treasures of the Acropolis; but we have of course no means of determining the authenticity of the relic. Diogenes Laertius tells us that Crito, a wealthy Athenian, charmed with the manners of Socrates, is said to have withdrawn him from the shop, and to have educated him. This Crito afterwards became a reverential disciple of the great genius he had discovered.

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* WIGGERS (*Life of Socrates*, trans.) says, that Timon the Sillograph calls Socrates, with a sneer, λιθοξόος, 'a stone-scraper.' He forgets that λιθοξόος was one of the names for a sculptor, as LUCIAN informs us in the account of his early life.

Considering that we have his own assertion as evidence of his having early studied Physics, for which he had an astonishing longing, and considering further that he so entirely relinquished that study, even declaring it to be impious,* it is of little importance to discuss, with German critics, whether he did or did not learn from Archelaus and Anaxagoras. That he learned oratory from Prodicus† is not discountenanced by the passage in Xenophon,‡ where he is made to say, 'You despise me because you have squandered money upon Protagoras, Gorgias, Prodicus, and so many others, in return for their teaching; whereas I am forced to draw my philosophy from my own brain;' for certainly, if any one can claim originality, it is Socrates: his philosophy he learned from no one. He struck into a new path. Instead of trying to account for the existence of the universe, he was ever craving, as Mr. Maurice well says, for a light to show him his own path through it.§

He did not commence teaching till about the middle of his career. We have but few records of the events which filled up the period between his first leaving his father and his first teaching. One of these was his marriage with Xanthippe. She bore him three children. The violence of her temper and the equanimity with which he submitted to it are proverbial. She has become a type; her name is synonymous with Shrew. He gave a playful explanation of his choice by remarking, that 'those who wish to become skilled in horsemanship select the most spirited horses; after being able to bridle those, they believe they can bridle all others. Now, as it is my wish to live and converse with men, I married this woman, being firmly convinced that in case I should be enable to endure her, I should be able to endure all others.'‖

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* In XENOPHON, 'madness.'—*Memorab.*, lib. i. c. 1.

† PLATO, *Meno*, p. 96.

‡ *Convivium*, i. 5.

§ MAURICE: *Moral and Metaphysical Philosophy*, i. 113.

‖ XENOPHON, *Convivium*, ii.

Before he gave himself up to teaching, he performed military service in three battles, and distinguished himself in each. In the first, the prize of bravery was awarded to him. He relinquished his claim in favour of Alcibiades, whom it might encourage to deserve such honour. Various anecdotes are related of him during his campaigns. In spite of the severity of winter, when the ice and snow were thick upon the ground, he went barefoot and lightly clad. On one occasion he stood before the camp for four-and-twenty hours on the same spot rapt in meditation. Plato has given us a beautiful description of Socrates during the campaign, which we quote in the translation by Shelley:—

'At one time we were fellow-soldiers, and had our mess together in the camp before Potidæa. Socrates, there overcame not only me, but every one besides, in endurance of toils: when, as happens in a campaign, we were reduced to few provisions, there were none who could sustain hunger like Socrates: and, when we had plenty, he alone seemed to enjoy our military fare. He never drank much willingly; but, when he was compelled he conquered all even in that to which he was least accustomed, and, what is most astonishing, no person ever saw Socrates drunk either then or at any other time. In the depth of winter (and the winters there are excessively rigid) he sustained calmly incredible hardships: and, amongst other things, whilst the frost was intolerably severe, and no one went out of their tents, or, if they went out, wrapt themselves up carefully and put fleeces under their feet, and bound their legs with hairy skins, Socrates went out only with the same cloak on that he usually wore, and walked barefoot upon the ice, more easily indeed than those who had sandalled themselves so delicately; so that the soldiers thought he did it to mock their want of fortitude. It would indeed be worth while to commemorate all that this brave man did and endured in that expedition.

'In one instance he was seen early in the morning standing in one place rapt in meditation, and, as he seemed not to be able to unravel the subject of his thoughts, he still continued to stand as inquiring and discussing within himself; and, when noon came, the soldiers observed him, and said to one another, "Socrates has been standing there thinking, ever since the morning." At last some Ionians came to the spot, and having supped, as it was summer, bringing their blankets, they lay down to sleep in the cool: they observed that Socrates continued to stand there the whole night until morning, and that, when the sun rose, he saluted it with a prayer, and departed.

'I ought not to omit what Socrates is in battle; for, in that battle after which the Generals decreed to me the prize of courage, Socrates alone of all men was the saviour of my life, standing by me when I had fallen and was wounded, and preserving both myself and my arms from the hands of the enemy. On that occasion I entreated the Generals to decree the prize, as it was most due, to him. And this, O Socrates, you cannot deny, that when the Generals, wishing to conciliate a person of my rank, desired to give me the prize, you were far more earnestly desirous than the Generals, that this glory should be attributed, not to yourself, but me.

'But to see Socrates when our army was defeated and scattered in flight at Delium, was a spectacle worthy to behold: On that occasion I was among the cavalry, and he on foot, heavily armed. After the total rout of our troops, he and Laches retreated together: I came up by chance, and, seeing them, bade them be of good cheer, for that I would not leave them. As I was on horseback, and therefore less occupied by a regard of my own situation, I could better observe, than at Potidæa, the beautiful spectacle exhibited by Socrates on this emergency. How superior was he to Laches in presence of mind and courage! Your representation of him on the stage, O Aristophanes, was not wholly unlike his real self on this occasion; for he walked and darted his regards around with a majestic composure, looking tranquilly both on his friends and enemies; so that it was evident to every one, even from afar, that whoever should venture to attack him would encounter a desperate resistance. He and his companion thus departed in safety; for those who are scattered in flight are pursued and killed, whilst men hesitate to touch those who exhibit such a countenance as that of Socrates even in defeat.'

We must cast a glance at his public career. His doctrine being ethical, there is great importance in seeing how far it was practical. He proclaimed the supremacy of Virtue over all other rules of life; he exhorted men to a brave and unflinching adhesion to Justice, as the only real happiness; he declared that the unjust alone are unhappy. Was he himself virtuous? was he happy?

His bravery as a soldier was surpassed by his bravery as a senator. He had that high moral courage which can brave, not only death, but the opinion of the world. He presents an example, almost unique in history, of a man who could defy a tyrant, and also defy a tyrannical mob, an impetuous, imperious mob. The Thirty Tyrants on one occasion summoned him, together with four others, to the Tholus, the place in which the Prytanes took their meals. He was there commanded to bring Leon of Salamis to Athens. Leon had obtained the right of Athenian citizenship, but, fearing the rapacity of the tyrants, had retired to Salamis. To bring back Leon, Socrates steadily refused. He says himself, that the 'Government, although it was so powerful, did not frighten me into doing anything unjust; but, when we came out of the Tholus, the four went to Salamis and took Leon, but I went away home. And perhaps I should have suffered death on account of this, if the Government had not soon been broken up.'

On another occasion he braved the clamorous mob. He was then a Senator, the only State office he ever held. The Athenian Senate consisted of the Five Hundred who were elected from the ten tribes. During a period of thirty-five or thirty-six days the members of each tribe in turn had the presidency, and were called Prytanes. Of the fifty Prytanes, ten had the presidency every seven days; each day one of these ten enjoyed the highest dignity, with the name of Epistates. He laid everything before the assembly of the people, put the question to the vote, examined the votes, and, in short, conducted the whole business of the assembly. He enjoyed this power, however, only for a single day; for that day he was entrusted with the keys of the citadel and the treasury of the republic.

Socrates was Epistates on the day when the unjust sentence was to be passed on the Admirals who had neglected to bury the dead after the battle of Arginusæ. To take care of the burial of the dead was a sacred duty.* The shades of the unburied were believed to wander restlessly for a hundred years on the banks of the Styx. After the battle of Arginusæ, a violent storm arose, which prevented the Admirals from obtaining the bodies of the slain. In order to remedy this, they left behind them some inferior officers (Taxiarchs) to attend to the office. But the violence of the storm rendered it impossible. The Admirals were tried. They produced the evidence of pilots to show that the tempest had rendered the burial impracticable; besides which, they had left the Taxiarchs behind, so that the blame, if any, ought to fall on the latter. This produced its natural effect on the people, who would instantly have given an acquittal, had the question been put to the vote. But the accusers managed to adjourn the assembly, pretending that it was too dark to count the show of hands. In the meanwhile the enemies of the Admirals did all they could to inflame the minds of the people. The lamentations and mournful appearance of the kinsmen of the slain, who had been hired for the tragic scene, had a powerful influence on the assembly. The votes were to be given on the general question, whether the Admirals had done wrong in not taking up the bodies of the dead; and, if they should be condemned by the majority (so the Senate ordained), they were to be put to death and their property confiscated. But to condemn all by one vote was contrary to law. The Prytanes, with Socrates at their head, refused to put the illegal question to the vote. The people became furious, and loudly demanded that those who resisted their pleasure should themselves be brought to trial. The Prytanes wavered, yielded. Socrates alone remained firm, defying the threats of the mob. He stood there to administer justice. He would not administer injustice. In consequence of his refusal, the question could not be put to the vote, and the assembly was again adjourned. The next day a new Epistates and other presidents succeeded, and the Admirals were condemned.*

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* The *Antigone* of Sophocles is founded on the sacredness of this duty.

It was impossible for Socrates to enter the market-place without at once becoming an object of attention. His ungainly figure, his strange character, and his bewitching tongue, excited and enchained curiosity. He became known to every citizen. Who had not listened to him? Who had not enjoyed his inimitable irony? Who had not seen him demolish the arrogance and pretension of some reputed wise man? Socrates must have been a terrible antagonist to all people who believed that they were wise because they could discourse fluently; and these were not few. He always declared that he knew nothing. When a man professed knowledge on any point, especially if admiring crowds gave testimony to that profession, Socrates was sure to step up to him, and, professing ignorance, entreat to be taught. Charmed with so humble a listener, the teacher began. Interrogated, he unsuspectingly assented to some very evident proposition; a conclusion from that, almost as evident, next received his assent; from that moment he was lost. With great power of logic, with much ingenious subtlety, and sometimes with daring sophistication, a web was formed from which he could not extricate himself. His own admissions were proved to lead to monstrous conclusions; these conclusions he repugned, but could not see where the gist of his error lay. The laughter of all bystanders bespoke his defeat. Before him was his adversary, imperturbably calm, apparently innocent of all attempt at making him ridiculous. Confused, but not confuted, he left the spot indignant with himself, but more indignant with the subtlety of his adversary.

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* WIGGERS, pp. 51–55.

It was thus that Socrates became mistaken for a Sophist; but he was distinguished from the Sophists by his constant object. Whilst they denied the possibility of truth, he only sought to make men aware of their ignorance, in the ironical, playful, and, sometimes, quibbling manner in which he destroyed their arguments.

This sort of disputation daily occurred in Athens; and by it, doubtless, Socrates acquired that notoriety which induced Aristophanes to select him as the Sophist hero of the comedy of *The Clouds*. It cannot be doubted that to his adversaries he must have been an exasperating opponent. No one was safe from his attack. No one who presumed to know anything could escape him. In confirmation, let us quote the account Socrates gives of his procedure, as reported by Plato in the *Apology*. Socrates there describes his sensations on hearing that Apollo had declared him to be the wisest of men. He could not understand this. Knowing himself to be wise in nothing, yet not daring to think the words of the god could be false, he was puzzled. 'I went to one of those who are esteemed to be wise, thinking that here, if anywhere, I should prove the oracle to be wrong, and to be able to say, "Here is a man wiser than I." After examining this man (I need not name him, but he was one of the politicians), and conversing with him, it was my opinion that this man *seemed* to many others, and especially to himself, to be wise, but *was* not so. Thereupon I tried to convince him that he thought himself wise, but was not. By this means I offended him and many of the bystanders. When I went away, I said to myself, "I am wiser than this man; for neither of us, it would seem, knows anything valuable: but he, not knowing, fancies he does know; I, as I really do not know, so I do not think I know. I seem, therefore, to be in one small matter wiser than he." After this I went to another still wiser than he, and came to the same result; and by this I affronted him too, and many others. I went on in the same manner, perceiving with sorrow and fear that I was making enemies; but it seemed necessary to postpone all other considerations to the service of the god, and therefore to seek for the meaning of the oracle by going to all who appeared to know anything. And, O Athenians, the impression made on me was this: The persons of most reputation seemed to me nearly the most deficient of all; other persons of much smaller account seemed much more rational.

'When I had done with the politicians, I went to the poets, tragic, dithyrambic, and others, thinking that I should surely find myself less knowing than they. Taking up those of their poems which appeared to me most laboured, I asked them (that I might at the same time learn something from them) what these poems meant? I am ashamed, O Athenians, to say the truth, but I must say it; there was scarcely a person present who could not have spoken better concerning their poems than they. I soon found that what poets do, they accomplish not by wisdom, but by a kind of natural turn, and an enthusiasm like that of prophets and those who utter oracles; for these, too, speak many fine things, but do not know one particle of what they speak.

'Lastly, I resorted to artificers; for I was conscious that I myself knew, in a manner, nothing at all, but should find them knowing many valuable things. And in this I was not mistaken; they knew things which I knew not, and were, so far, wiser than I. But they appeared to me to fall into the same error as the poets; each, because he was skilled in his own art, insisted upon being the wisest man in other and greater things; and this mistake of theirs overshadowed what they possessed of wisdom. From this search, O Athenians, the consequences to me have been, on the one hand, many enmities, and of the most formidable kind, which have brought upon me many false imputations; but, on the other hand, the name and general repute of a wise man.'

Socrates, like Dr. Johnson, did not care for the country. 'Sir,' said the Doctor, 'when you have seen one green field, you have seen all green fields; Sir, I like to look upon men.

'Let us walk down Cheapside.' In words of the same import does Socrates address Phædrus, who accused him of being unacquainted even with the neighbourhood of Athens. 'I am very anxious to learn; and from fields and trees I can learn nothing. I can only learn from men in the city.' And he was always to be found where men were assembled.* Ready to argue with every one, he demanded money from none. He gave no lectures: he only talked. He wrote no books: he argued.† He cannot properly be said to have had a school, since he did not even give a systematic exposition of his doctrine. What has been called his school, must be understood to refer to the many delighted admirers whose custom it was to surround him whenever he appeared, to talk with him as often as possible, and to accept his leading opinions.

'At what time Socrates relinquished his profession as a statuary we do not know; but it is certain that all the middle and later part of his life, at least, was devoted exclusively to the self-imposed task of teaching; excluding all other business, public or private, and to the neglect of all means of fortune. We can hardly avoid speaking of him as a teacher, though he himself disclaimed the appellation; his practice was to talk or converse. Early in the morning he frequented the public walks, the gymnasia for bodily training, and the schools where youths were receiving instruction; he was to be seen in the market-place at the hour when it was most crowded, among the booths and tables where goods were exposed for sale; his whole day was usually spent in this public manner. He talked with any one, young or old, rich or poor, who sought to address him, and in the hearing of all who stood by; not only he never either asked or received any reward, but he made no distinction of persons, never withheld his conversation from any one, and talked on the same general subjects with all. . . . As it was engaging, curious and instructive to hear, certain persons made it their habit to attend him in public as companions and listeners. These men, a fluctuating body, were commonly known as his disciples and scholars; though neither he nor his personal friends ever employed the terms *teacher* and *disciple* to describe the relation between them. Now no other person in Athens, nor in any other Grecian city, appears ever to have manifested himself in this perpetual and indiscriminate manner as a public talker for instruction. By the peculiar mode of life which Socrates pursued, not only his conversation reached the minds of a much wider circle, but he became more abundantly known as a person. While acquiring a few friends and admirers, and raising a certain intellectual interest in others, he at the same time provoked a large number of personal enemies. This was probably the reason why he was selected by Aristophanes and the other comic writers to be attacked as a general representative of philosophical and rhetorical teaching.'*

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* XENOPHON: *Memorab.* i. 1. Καὶ ἔλεγε μὲν ὡς τὸ πολὺ, τοῖς δὲ βουλομένοις ἐξῆν ἀκούειν.

† We are, therefore, disposed to accept as historical, the language PLATO puts into his mouth respecting the inefficiency of books. Books cannot be interrogated, cannot answer; therefore, cannot teach; we can only learn from them that which we knew before.—*Phædrus*, p. 96.

Although Socrates was a knight-errant of philosophy, ever on the alert to rescue some forlorn truth from the dungeons of prejudice, and therefore was not scrupulous as to who or what his adversary might be, yet his especial enemies were the Sophists. He never neglected an opportunity of refuting them. He combated them with their own weapons, and on their own ground. He knew all their tactics. He knew their strength and their weakness. Like them he had studied Physics, in the speculations of the early thinkers; and like them had seen that these speculations led to no certainty. But he had not, like them, made scepticism a refuge; he had not proclaimed truth to be a phantom, because he could not embrace her. No: defeated in his endeavour to penetrate the mysteries of the world *without*, he turned his attention to the world *within*. For Physics he substituted Morals. The certitude which he failed to gain respecting the operations of nature, had not shaken his conviction of the certitude of the moral truths which his conscience irresistibly impressed upon his attention. The world of sense might be fleeting and deceptive. The voice of conscience could not deceive. Turning his attention inwards, he discovered certain truths which admitted of no question. They were eternal, immutable, evident. These he opposed to the scepticism of the Sophists. Moral certitude was the rock upon which his shipwrecked soul was cast. There he could repose in safety. From its heights he could survey the world, and his relation to it.

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* Grote: *Hist. of Greece*, viii. 555.

Thus was his life spent. In his old age he had to appear before his judges to answer the accusations of Impiety and Immorality. He appeared, and was condemned.

When we think upon the character of this great man, whose virtues, luminous in the distance, and surrounded with the halo of imperishable glory, so impose on our imaginations that they seem as evident as they were exalted, we cannot hear of his trial and condemnation without indignant disgust at the Athenians. But, for the sake of humanity, let us be cautious ere we decide. The Athenians were volatile, credulous and cruel: all masses of men are. But it is too much to suppose that they, or any people, would have condemned Socrates had he appeared to them what he appears to us. Had a tyrant committed such a deed, the people would have avenged it. But Socrates was not to them what he appears to us. He was offensive to them, and paid the penalty.

A great man cannot be understood by his contemporaries. He can only be understood by his peers; and his peers are few. Posterity exalts a great man's fame. by producing a number of great men to appreciate him. The great man is also necessarily a reformer in some shape or other. Every reformer has to combat existing prejudices and deep-rooted passions. To cut his own path, he must displace the rubbish which encumbers it. He is therefore in opposition to his fellow-men, and attacks their interests. Blinded by prejudice, by passion, and by interest, men cannot see the excellence of him they oppose; and hence it is that, as Heine so admirably says, 'wherever a great soul gives utterance to its thoughts, there also is Golgotha.'

Reformers risk martyrdom; and Socrates was a reformer. Although, therefore, his condemnation appears to us very unjust and very frightful, to the Athenians it was no more than the banishment of Empedocles, or the condemnation of Protagoras. Pure as were his intentions, his actions and opinions were offensive. He incurred the hatred of party-spirit; and by that hatred fell. *We* recognise the purity of his intentions; he does not oppose *us*. We can pardon what we believe to be his errors, because those errors wage no war with our interests. Very differently were the Athenians situated. To them he was offensive. He hated injustice and folly of all kinds, and never lost an occasion of exposing them. A man who undertakes to be the critic of his age cannot escape the critic's penalty.*

But, perhaps, the most exasperating part of his behaviour was the undisguised contempt which he uniformly expressed for the readiness with which men assumed that they had a capacity for government. Only the wise, he said, were fit to govern, and they were few. Government is a science, and a difficult science. It is infinitely more difficult to govern a State than to govern the helm of a ship. Yet, the same people who would not trust themselves in a ship without an experienced pilot, not only trust themselves in a State with an inexperienced ruler, but also endeavour to become rulers themselves. This contempt was sufficient to cause his condemnation; but a better pretext was wanted, and it was found in his impiety. His defenders, ancient and modern, have declared that he was not guilty of impiety; and Xenophon 'wonders' that the charge could have been credited for an instant. But we believe that the charge was as much merited as in the case of the other philosophers against whom it was made.† He gave new interpretations to the reigning dogmas; and opposing the mythological interpretations, he was chargeable with impiety.

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* The masterly account of the trial of Socrates, given by Mr. GROTE, should be read and re-read by all interested in this subject.

† SEXTUS EMPIRICUS, speaking of the Socratic heresy, calls it ὡς ἐκραυλίζουσαν τὸ

It has been remarked by an anonymous writer, that, in complying with the rites of his country, Socrates avoided her superstitions. The right of sacrifice, so simple and natural that it harmonises with all and any religious truth, required to be guarded against a great abuse, and against this he warned his countrymen.

'When,' says Xenophon, 'he sacrificed, he feared not his offering would fail of acceptance in that he was poor; but, giving according to his ability, he doubted not but, in the sight of the Gods, he equalled those men whose gifts and sacrifices overspread the whole altar; for Socrates always reckoned upon it as a most indubitable truth, that the service paid the Deity by the pure and pious soul was the most grateful service.

'When he prayed, his petition was only this,—that the Gods would give to him those things that were good. And this he did, forasmuch as they alone knew what was good for man. But he who should ask for gold or silver, or increase of dominion, acted not, in his opinion, more wisely than one who should pray for the opportunity to fight, or game, or anything of the like nature; the consequence whereof being altogether doubtful, might turn, for aught he knew, not a little to his disadvantage.' *

It was more difficult for the philosopher either innocently to comply with, or safely to oppose, that part of the popular religion which related to oracles and omens. Socrates appears to have done what was possible, and what therefore was best ultimately, towards correcting this great evil.

'He likewise asserted, that the science of divination was necessary for all such as would govern successfully, either cities or private families; for, although he thought every one

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θειον.—Adv. Math. ii. p. 69. PLATO's dialogues of *The Second Alcibiades* and the *Euthyphro* are evidence enough of Socrates' opposition to the Mythology of his day.

* *Memorabilia*, i. 3.

might choose his own way of life, and, afterwards, by his industry, excel therein (whether architecture, mechanics, agriculture, superintending the labourer, managing the finances, or practising the art of war), yet even here, the Gods, he would say, thought proper to reserve to themselves, in all these things, the knowledge of that part of them which was of the most importance, since he who was the most careful to cultivate his field, could not know, of a certainty, who should reap the fruit of it.

'Socrates therefore esteemed all those as no other than madmen who, excluding the Deity, referred the success of their designs to nothing higher than human prudence. He likewise thought those not much better who had recourse to divination on every occasion, as if a man was to consult the oracle whether he should give the reins of his chariot into the hands of one ignorant or well versed in the art of driving, or place at the helm of his ship a skilful or unskilful pilot.

'He also thought it a kind of impiety to importune the Gods with our inquiries concerning things of which we may gain the knowledge by number, weight, or measure; it being, as it seemed to him, incumbent on man to make himself acquainted with whatever the Gods had placed within his power: as for such things as were beyond his comprehension, for these he ought always to apply to the oracle; the Gods being ever ready to communicate knowledge to those whose care had been to render them propitious.' *

The trial of Socrates belongs rather to the history of Greece than to the history of Philosophy. It was a political trial. His bearing during the whole period was worthy of him: calm, grave, and touching; somewhat haughty perhaps, but with the haughtiness of a brave soul fighting for the truth. It increased the admiration of his admirers, and exasperated his adversaries.

Plato, then a young man, was present at the trial, and has preserved an admirable picture of it in his *Apology*. The closing speech, made by Socrates, after sentence of death had been pronounced, is supposed to be given with substantial accuracy by Plato. We extract it:—

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* *Memorabilia*, i. 1.

'It is for the sake of but a short span, O Athenians, that you have incurred the imputation, from those who wish to speak evil of the city, of having put to death Socrates, a wise man (for those who are inclined to reproach you will say that I am wise, even if I am not). Had you waited a short time the thing would have happened without your agency; for you see my years; I am far advanced in life, and near to death. I address this not to all of you, but to those who have voted for the capital sentence, and this too I say to the same persons,—Perhaps you think that I have been condemned for want of skill in such modes of working upon your minds, as I might have employed with success, if I had thought it right to employ all means in order to escape from condemnation. Far from it: I have been condemned, and not from want of things to say, but from want of daring and shamelessness; because I did not choose to say to you the things which would have been pleasantest for you to hear, weeping, and lamenting, and saying and doing other things which I affirm to be unworthy of me; as you are accustomed to see others do. But neither did I then think fit to do or say anything unworthy of a free man; nor do I now repent of having thus defended myself. I would far rather have made the one defence and die, than have made the other and live. Neither in a court of justice, nor in war, ought we to make it our object that, whatever happen, we may escape death. In battle it is often evident that a man may save his life by throwing away his arms and imploring mercy of his pursuers; and in all other dangers there are many contrivances by which a person may get off with life if he dare do or say everything. The difficulty, O Athenians, is not to escape from death, but from guilt; for guilt is swifter than death, and runs faster. And now I, being old and slow of foot, have been overtaken by Death, the slower of the two; but my accusers, who are brisk and vehement, by wickedness, the swifter. We quit this place: I have been sentenced by you to death, but they having sentence passed upon them, by Truth, of guilt and injustice. I submit to my punishment, and they to theirs.

'But I wish, O men who have condemned me, to prophesy to you what next is to come. I say, then, that, immediately after my death, there will come upon you a far severer punishment than that which you have inflicted upon me; for you have done this, thinking by it to escape from being called to account for your lives. But I affirm that the very reverse will happen to you. There will be many to call you to account whom I have hitherto restrained, and whom you saw not; and, being younger, they will give you more annoyance, and you will be still more provoked; for, if you think by putting men to death to deter others from reproaching you with living amiss, you think ill. That mode of protecting yourselves is neither very possible nor very noble: the noblest and the easiest too is not to cut off other people, but so to order yourselves as to attain the greatest excellence.

'Thus much I beg of you: When my sons grow up, punish them, O Athenians, by tormenting them as I tormented you, if they shall seem to study riches, or any other ends, in preference to virtue. And, if they are thought to be something, being really nothing, reproach them, as I have reproached you, for not attending to what they ought, and fancying themselves something when they are good for nothing. And, if you do this, both I and my sons shall have received what is just at your hands.

'*It is now time that we depart, I to die, you to live; but which has the better destiny is unknown to all except the Gods.*'

This is very grand and impressive, and paints the character of the man. *Magno animo et vultu carcerem intravit,* says Seneca. He consoled his weeping friends, and gently upbraided them for their complaints at the injustice of the sentence. No man ever faced death with greater calmness; for no man ever welcomed it with greater faith as a new birth to a higher state of being.

He would have been executed the next day, but it happened that the next day was the first of the festival of the Delian Theoria, during which no criminal could be put to death. This festival lasted thirty days. Socrates, though in chains, and awaiting his end, spent the interval in cheerful conversation with his friends, and in composing verses. 'During this time,' says Xenophon, 'he lived before the eyes of all his friends in the same manner as in former days; but now his past life was most admired on account of his present calmness and cheerfulness of mind.' On the last day he held a conversation with his friends on the immortality of the soul. This forms the subject of Plato's *Phædo.* The arguments in that dialogue are most probably Plato's own; and it is supposed that the dying speech of Cyrus, in Xenophon's *Cyropædia,* is a closer copy of the opinions of Socrates.

Phædo, describing the impression produced on him by the sight of Socrates on this final day, says:—'I did not feel the pity which it was natural I should feel at the death of a friend: on the contrary, he seemed to me perfectly happy as I gazed on him and listened to him; so calm and dignified was his bearing. And I thought that he only left this world under the protection of the Gods, who destined him to a more than mortal felicity in the next.' He then details the conversation on the immortality of the soul; after which, he narrates the close of that glorious life in language worthy of it. Even in the English version of Taylor the beauty of the narrative stands manifestly out.

'When he had thus spoke, he rose, and went into a room, that he might wash himself, and Crito followed him: but he ordered us to wait for him. We waited, therefore, accordingly, discoursing over, and reviewing among ourselves, what had been said, and sometimes speaking about his death, how great a calamity it would be to us; and sincerely thinking that we, like those who are deprived of their father, should pass the rest of our life in the condition of orphans. But, when he had washed himself, his sons were brought to him (for he had two little ones, and one considerably advanced in age), and the women belonging to his family likewise came in to him: but, when he had spoken to them before Crito, and had left them such injunctions as he thought proper, he ordered the boys and women to depart; and he himself returned to us. And it was now near the setting of the sun: for he had been absent for a long time in the bathing-room. But, when he came in from washing, he sat down, and did not speak much afterwards; for, then, the servant of the eleven magistrates came in, and, standing near him, I do not perceive that in you, Socrates (says he), which I have taken notice of in others; I mean that they are angry with me, and curse me, when, being compelled by the magistrates, I announce to them that they must drink the poison. But, on the contrary, I have found you at the present time to be the most generous, mild, and best of all the men who ever came into this place: and, therefore, I am now well convinced that you are not angry with me, but with the authors of your present condition. You know those whom I allude to. Now, therefore (for you know what I came to tell you), farewell! and endeavour to bear this necessity as easily as possible. And at the same time, bursting into tears, and turning himself away, he departed.

'Then Crito gave the sign to the boy that stood near him. And the boy departing, and, having staid for some time, came, bringing with him the person that was to administer the poison, and who brought it properly prepared in a cup. But, Socrates, beholding the man,—It's well, my friend (says he); but what is proper to do with it? for you are knowing in these affairs. You have nothing else to do (says he) but when you have drunk it to walk about, till a heaviness takes place in your legs, and afterwards lie down: this is the manner in which you should act. And, at the same time, he extended the cup to Socrates. But Socrates received it from him, and, indeed, with great cheerfulness; neither trembling nor suffering any alteration for the worse in his colour or countenance, but, as he was accustomed to do, beholding the man with a bull-like aspect. What say you (says he) respecting this potion? Is it lawful to make a libation of it, or not? We only bruise (says he), Socrates, as much as we think sufficient for the purpose. I understand you (says he); but it is certainly both lawful and proper to pray to the Gods, that my departure from hence thither may be attended with prosperous fortune; which I entreat them to grant may be the case. And, at the same time ending his discourse, he drank the poison with exceeding facility and alacrity. And thus far, indeed, the greater part of us were tolerably well able to refrain from weeping; but, when we saw him drinking, and that he had drunk it, we could no longer restrain our tears. But from me, indeed, notwithstanding the violence which I employed in checking them, they flowed abundantly; so that, covering myself with my mantle, I deplored my misfortune. I did not, indeed, weep for him, but for my own fortune, considering what an associate I should be deprived of. But, Crito, who was not able to restrain his tears, was compelled to rise before me. And Apollodorus, who, during the whole time prior to this, had not ceased from weeping, then wept aloud and with great bitterness; so that he infected all who were present except Socrates. But Socrates, upon seeing this, exclaimed: What are you doing, excellent men? For, indeed, I principally sent away the women, lest they should produce a disturbance of this kind. For I have heard it is proper to die attended with propitious omens. Be quiet, therefore, and summon fortitude to your assistance. But when we heard this we blushed, and restrained our tears. But he, when he found, during his walking, that his legs felt heavy, and had told us so, laid himself down in a supine position. For the man had ordered him to do so. And, at the same time, he who gave him the poison, touching him at intervals, considered his feet and legs. And, after he had vehemently pressed his foot, he asked him if he felt it. But Socrates answered he did not. And, after this, he again pressed his thighs: and, thus ascending with his hand, he showed us that he was cold and stiff. And Socrates also touched himself, and said that when the poison reached his heart he should then leave us. But now his lower belly was almost cold: when, uncovering himself (for he was covered), he said (which were his last words), Crito, we owe a cock to Æsculapius. Discharge this debt, therefore, for me, and don't neglect it. It shall be done (says Crito); but consider whether you have any other commands. To this inquiry of Crito he made no reply; but shortly after moved himself, and the man covered him. And Socrates fixed his eyes. Which, when Crito perceived, he closed his mouth and eyes. This was the end of our associate; a man, as it appears to me, the best of those whom we were acquainted with at that time; and, besides this, the most prudent and just.'

Thus perished this great and good man. His character we have endeavoured to represent fairly, though briefly. Let us now add the summing-up of Xenophon, who loved him tenderly, and expressed his love gracefully:—

'As to myself, knowing him of a truth to be such a man as I have described; so pious towards the Gods, as never to undertake anything without first consulting them; so just towards men, as never to do an injury, even the very slightest, to any one, whilst many and great were the benefits he conferred on all with whom he had any dealings; so temperate and chaste, as not to indulge any appetite or inclination at the expense of whatever was modest and becoming; so prudent as never to err in judging of good and evil, nor wanting the assistance of others to discriminate rightly concerning them; so able to discourse upon, and define with the greatest accuracy, not only those points of which we have been speaking, but likewise every other, and, looking as it were into the minds of men, discover the very moment for reprehending vice, or stimulating to the love of virtue: experiencing, as I have done, all these excellences in Socrates, I can never cease considering him as the most virtuous and the most happy of all mankind. But, if there is any one who is disposed to think otherwise, let him go and compare Socrates with any other, and afterwards let him determine.'[*]

After-ages have cherished the memory of his virtues and his fate; but without profiting much by his example, and without learning toleration from his story.

§ II. Philosophy of Socrates.

Opinions vary so considerably respecting the philosophy of Socrates, and materials whereby they can be tested are so scanty, that any attempt at exposition must be made with diffidence. The historian has to rely solely on his critical skill; and on such grounds he will not, if prudent, be very confident.

Amongst the scattered materials from which an opinion may be formed are, 1st: The very general tradition of Socrates having produced a revolution in thought; in consequence of which he is by all regarded as the initiator of a new epoch; and by some as the founder of Greek Philosophy, properly so called. 2ndly. The express testimony of Aristotle, that he first made use of *definitions* and proceeded by *induction*.[†] These two positions involve each other. If Socrates produced a revolution in philosophy, he could only have done so by a new Method or new development of Method. That development we see exhibited in the phrase of Aristotle, but it is there only exhibited in a brief concentrated manner, and requires to be elucidated.

Mr. Grote remarks that it requires at the present day some mental effort to see anything important in the invention of notions so familiar as those of Genus—Definition—Individual things as comprehended in a genus—what each thing is, and to what genus it belongs, etc. Nevertheless, four centuries before Christ these terms denoted mental processes which few, if any but Socrates, had a distinct recognition of, in the form of analytical consciousness. 'The ideas of men—speakers as well as hearers, the productive minds as well as the recipient multitude—were associated together in groups, favourable rather to emotional results, or to poetical, rhetorical narrative, and descriptive effect, than to methodical generalization, to scientific conception, or to proof either inductive or deductive. That reflex act of attention which enables men to understand, compare, and rectify their own mental process was only just beginning. It was a recent novelty on the part of the rhetorical teachers to analyse the component parts of a public harangue, and to propound some precepts for making men tolerable speakers. It may be doubted whether any one before Socrates ever used the words Genus and Species (originally meaning Family and Form), in the philosophical sense now exclusively appropriated to them. Not one of those many names (called by logicians *names of the second intention*) which imply distinct attention to various parts of the logical process, and enable us to criticize it in detail, then existed. All of them grew out of the schools of Plato, Aristotle, and the subsequent philosophers, so that we can thus trace them in their beginning to the common root and father, Socrates.' * The novelty was very distasteful to all who were not seduced by it. Men resent being forced to rigour of speech and thought; they call you 'pedantic' if you insist on their using terms with definite meanings: they prefer the loose flowing language of indefinite association which picks up in its course a variety of heterogeneous meanings; and are irritated at any speaker who points out to them the inaccuracy of their phrases. Aristotle says it was thought bad taste in his day—ἡ ἀκριβολογία μικροπρεπές: and Timon the Sillograph sarcastically calls Socrates one of the ἀκριβόλογοι, as if precision of language were a vice.

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[*] *Memorabilia*, iv. 7.

[†] 'There are two things of which Socrates must justly be regarded as the author, the *Inductive Reasoning* and *Abstract Definitions*,'—τοὺς τ' ἐπακτικοὺς λόγους καὶ τὸ ὁρίζεσθαι καθόλου. (Arist. *Metaph.* xiii. 4.)

We have here the ground of opposition between Socrates and the Sophists distinctly marked out. It was the opposition of Dialectics to Rhetoric. The business of the rhetorician is to persuade, and for persuasion he must enlist the sympathies of his audience by adopting their general convictions, and merely impressing on those convictions a particular direction. The grounds of those convictions, or their validity, are never questioned. It is otherwise with the dialectician: his business is discussion. He ploughs up the old landmarks. He questions the old axioms. He has to foresee and meet every objection which intellectual scrutiny can discern. The Sophists, sceptical of man's power of reaching absolute truth, were content, as practical men, to deal with opinions already existing. Socrates, sceptical of man's having yet reached the truth, was intent on enforcing this conviction of the illusory nature of established opinions. He felt that there was a discoverable truth, and knew that men had not yet discovered it. How was the discovery to be made?

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* Grote, viii. 578.

First, by clearing the mind of all its incoherent and unscientific notions; secondly, by replacing these with scientific notions. Men used language which was full of emotional meaning to them, but on which there was little intellectual agreement. All men, for example, agreed that wickedness deserves punishment; but what was wickedness they were unable to define. Socrates required them to ascertain what it was they were speaking of; to define wickedness, which, being a general term, had, as he thought, some common objective characteristic corresponding in all cases to the common subjective feeling.

'The notions of Genus, subordinate genera, and individuals as comprehended under them, were at that time newly brought into clear consciousness in the human mind. The profusion of logical distribution employed in some of the dialogues of Plato seems partly traceable to his wish to familiarize his hearers with that which was then a novelty, as well as to enlarge its development and diversify its mode of application.' 'We must always consider the Method of Socrates in conjunction with the subjects to which he applied it. . . On such questions as these—What is justice?—What is piety?—What is democracy?—What is law?—every man fancied that he could give a confident opinion, and even wondered that any other person should feel a difficulty. When Socrates, professing ignorance, put any such question, he found no difficulty in obtaining an answer, given off-hand and with very little reflection. The answer purported to be the explanation or definition of a term, familiar indeed, but of wide and comprehensive import,—given by one who had never before tried to render to himself an account of what it meant. Having got this answer, Socrates put fresh questions, applying it to specific cases, to which the respondent was compelled to give answers inconsistent with the first; showing that the definition was either too narrow or too wide, or defective in some essential condition. The respondent then amended his answer; but this was a prelude to other questions, which could only be answered in ways inconsistent with the amendment; and the respondent, after many attempts to disentangle himself, was obliged to plead guilty to the inconsistencies, with an admission that he could make no satisfactory answer to the original query, which at first had appeared so easy and familiar. . . The discussion first raised by Socrates turns upon the meaning of some large generic term. The queries whereby he follows it up bring the answer given into collision with various particulars which it ought not to comprehend, or with others which it ought to comprehend but does not. The inconsistencies into which the hearer is betrayed in his various answers proclaim to him the fact that he has not yet acquired anything like a clear and full conception of the common attribute which binds together the various particulars embraced under some term which is ever upon his lips. He is thus put upon the train of thought which leads to a correction of the generalization, and lights him on to that which Plato calls seeing the One in the Many, and the Many in the One.'*

It is scarcely necessary for us to pause here to consider the misleading tendencies of such a search for an objective existence corresponding with a subjective creation, or general term which indicated the simple fact that many objects were capable of exciting the feeling of admiration or of repugnance, owing, not to any common property in the objects, but to a common property in the subject: not because the maiden, the lyre, the pot, the horse, and the generous deed had any one thing in common, which was Beauty; but because men had a susceptibility of pleasurable emotion which these various objects could excite, and were consequently grouped together under the general term beautiful.

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* Grote, viii. 583–8.

Yet, although this search after an objective reality for a subjective fiction was misleading, and metaphysical in the bad sense of the word, it was, as Aristotle remarked, a novelty, and a valuable novelty, introduced by Socrates in his search after Definitions. When he insisted that all persons are just through Justice, wise through Wisdom, good through Goodness, beautiful through Beauty, and held that Justice, Wisdom, Goodness, and Beauty were things objectively existing, he was only logically carrying out the fundamental assumption of the Subjective Method; and perhaps he aided in the final rejection of that Method by the conclusions to which he forced it. But although in one sense his procedure was misleading, in another it was invaluable. It impressed upon his contemporaries and successors the vanity of their supposed knowledge, and the necessity of examining more rigorously into the things they were wont to take for granted.

This new development of the old Method (improperly called a *change* in Method by Mr. Grote) was one which, considered scientifically, we may reject; but, considered historically, it appears important. On a first glance the pre-Socratic thinkers seem nearer positive science than the post-Socratic thinkers. Plato and Aristotle appear as splendid will-o'-the-wisps leading men away from the firm path of objective research. But a closer examination dispels this suggestion. They are really in advance of their predecessors, because they are profoundly convinced of the necessity for criticism. The early thinkers were unaware of the many plausible solutions which would inevitably arise, insufficiently aware of the sources of error; * and when Socrates introduced his method of negation and cross-questioning, he unsealed their eyes, and made them aware of the prematurity of their conclusions.

It is only by watching the operation of uncultivated minds that we can bring clearly before ourselves the mental condition of the early thinkers, who were contented with simple affirmations, and seldom thought of submitting hypothesis to verification. A plausible guess was accepted as needing no confirmation. The idea of cross-questioning the guesser, of making him confront his assertion with fact, rarely occurred to them. Hence the rudeness of the shock when they came in contact with Socrates. They touched a torpedo.

When it is said that Socrates produced a complete revolution in Method by placing the negative point of view foremost, and giving to the cross-examining Elenchus an emphasis it never had before, this must not be understood as implying a real revolution in the mental attitude. The old subjective attitude remained. The novelty was in the importance assigned to verification as a philosophical necessity; but the kind of verification was, as of old, purely subjective. Nor, although there was a certain change in the direction of inquiry, was there any change in the spirit.

It was he who first considered Ethics as a possible science, and, with the exclusiveness natural to ardent reformers, soon began to consider it the only science. While all previous philosophers had been occupied with the Cosmos as a whole, blending together astronomy, cosmogony, geometry, metaphysics, and physics, he isolated ethics from this confused mass, insisted on its importance as *the* object of study, much in the same way as Hippocrates isolated medicine from the undifferentiated philosophical speculation. The uncertainty which reigned, the hopelessness of the efforts, instilled in his mind the belief that the Gods did not mean man to penetrate their secrets. Nothing, therefore, remained but to seek for certainty where alone it could be found, in the human conscience. He bade men study human facts and leave the divine to the Gods.

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* 'The early thinkers,' says ARISTOTLE, 'knew nothing of Dialectics.'

His influence, to a great extent, for a time arrested cosmical speculation by the force of his dialectics, which exposed the ignorance of men on topics seemingly most familiar to them. 'When we look at the number of these early theories and the great need which all of them had to be sifted and scrutinized, we shall recognise the value of the negative procedure under such circumstances, whether the negationist had or had not any better affirmative theory of his own. Socrates, moreover, not only turned the subject-matter of discussion from physics to ethics, but also brought into conscious review the *method* of philosophizing; which was afterwards still further considered and illustrated by Plato. General and abstract terms and their meaning stood out as the capital problems of philosophical research, and as the governing agents of the mind during the process; in Plato and Aristotle, and the dialectics of their age, we find the meaning or concept corresponding to these terms invested with an objective character, and represented as a cause or beginning, by which or out of which real concrete things were produced. Logical, metaphysical, ethical entities, whose existence consists in being named, and reasoned about, are presented to us (by Plato) as the real antecedents and producers of the sensible Kosmos and its contents, or (by Aristotle) as external with the Kosmos, but as its underlying constituents, the *ἀρχαί*, primordia or ultima, into which it was the purpose of the philosopher to reduce sensible things.'*

Conceit of knowledge, without the reality, was by Socrates perpetually stigmatized as the most disgraceful of mental defects,* and the whole effort of his terrible questioning—the 'cross-examining Elenchus'—was to make men aware of this conceit, to prove to them that their knowledge was a *sham*, as Carlyle would call it. Instead of the loose, heterogeneous conceptions with which men deceived themselves and others into the belief of knowledge, he insisted on the substitution of rigorous and distinct conceptions.

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* Grote, *Plato*, i. 95.

'Every man,' says Mr. Grote, 'found persuasions in his own mind without knowing how they came there; and witnessed them in others as portions of a general fund of unexamined commonplace and credence. Because the words were at once of large meaning, embodied in old familiar mental processes, and surrounded by a strong body of sentiment, the general assertions in which they were embodied appeared self-evident and imposing to every one: so that, in spite of continual dispute in particular cases, no one thought himself obliged to analyse the general propositions themselves, or to reflect whether he had verified their import and could apply them rationally and consistently.'

The phenomenon here adverted to is too obvious, even at the present day, to need further elucidation. In morals, politics, political economy, on all social subjects, the same confident persuasion of knowledge exists—the same propagation by authority and example of convictions unverified and resting only on sentiment—the same illusion that because every man is familiar with the language, therefore he is master of the facts, and is competent to apply comprehensive words and assume the truth of propositions without any special analysis or study. 'A man who has never bestowed special study on astronomy knows that he is ignorant of it: to fancy that he knows it without such preparation would be held an absurdity. While the scientific point of view has thus acquired complete predominance in reference to the physical world, it has made little way comparatively on topics regarding man and society, wherein "fancy of knowledge without the reality" continues to reign, not without criticism and opposition, yet still as a paramount force. And if a new Socrates were now to put the same questions in the market-place to men of all ranks and professions, he would find the like confident persuasion and unsuspecting dogmatism as to generalities, the like faltering blindness and contradiction when tested by cross-examining details.'

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* PLATO, *Apologia*, p. 29 (p. 114, ed. Bekker): καὶ τοῦτο πῶς οὐκ ἀμαθία ἐστὶν αὕτη ἡ ἐπονείδιστος, ἡ τοῦ οἴεσθαι εἰδέναι ἃ οὐκ οἶδεν;

Socrates, having put an end to this confident delusion, had to replace it by real knowledge.

How could this be done but by Definitions? To know the essence of a thing you must consider it as distinct from everything else, you must *define* it; by defining it you demarcate it from what it is *not*, and so present the thing before you in its essence.

It was a fundamental conviction with him that it is impossible to start from one true thought, and be entangled in any contradiction with another true thought; knowledge derived from any one point, and obtained by correct combination, cannot contradict that which has been obtained from any other point. He believed that Reason was pregnant with Truths, and only needed an accoucheur. An accoucheur he announced himself; his main instruments were Definitions. By Definition he enabled the thinker to separate the particular thought he wished to express from the myriad of other thoughts which clouded it. By Definition he enabled a man to contemplate the essence of a thing, because he admitted nothing which was not essential into the definition.

The radical mistake here is the confusion between Definitions of Names and Definitions of Things. In the Definition of a Name nothing more is implied than the meaning intended to be affixed; in the definition of a Thing there is, over and above this intended meaning, the assertion of a corresponding fact which the definition describes.

We have more than once commented on the natural tendency of the early thinkers to mistake distinctions in words for distinctions in things. We have now to signalize, in the history of speculation, the reduction of this tendency to a systematic formula. Names henceforth have the force of things.* A correct Definition is held to be a true description of the thing *per se.* The *explanation of terms* as equivalent to the *explanation of things*, and the exhibition of the nature of any thing in a definition as equivalent to actual analysis of it, are the central errors of metaphysical philosophy.

When stated in a naked manner, the absurdity is apparent; but it may be so disguised as to look philosophic. Hence the frequent use of such phrases as that certain properties are 'involved in the idea' of certain things; as if being involved in the idea, *i.e.* being included in the definition, necessarily implied a correspondent *objective* existence; as if human conceptions were the faithful copies of external things. The conceptions of men widely differ; consequently different properties are 'involved' in these different conceptions; but all cannot be true, and the question arises, Which conception is true? To answer this question by anything like a definition, is to argue in a circle. A principle of certitude must be sought. That principle, however, is still to seek.

With respect to the second character of the Socratic Method, the employment of Induction, I cannot agree with those who consider it an anticipation of Bacon. It is perfectly true that there is a certain resemblance between his practice of analyzing the confused generalizations of popular judgments, and of vividly recalling the particulars on which these generalizations were founded, and the Baconian practice of criticising the errors of *intellectus sibi permissus*; it is true also that he did constantly proceed by induction. But it is not less true that the induction he employed was that *enumeration of particulars* (reasoning by analogy) which it is Bacon's merit to have exposed; and thus he not only differed from Bacon in the object of his search, but in the method of search. Nevertheless the testimony of Aristotle that

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* See PLATO's *Cratylus.*

Socrates was the first to reason inductively—that is to say, to employ induction as a conscious method—points to an important characteristic; and when we compare the Socratic procedure with that of all previous philosophies, we see how striking a novelty it must have been.

Socrates has been almost taunted with never having promulgated any system of his own. His rank in the history of philosophy has been questioned, and has been supposed to be only that of a moralist. A passage of Aristotle has been quoted as decisive on this point: 'The speculations of Socrates were only concerning Ethics, and not at all concerning Nature in general' (τῆς ὅλης φύσεως). But this is not *all* the passage: it continues thus: 'In these speculations he sought the Abstract (τὸ καθόλου), and was the first who thought of giving definitions.' Now in this latter portion we believe there is contained a hint of something more than the mere moralist—a hint of the metaphysician. On turning to another part of Aristotle's treatise * we accordingly find this hint more clearly brought out; we find an express indication of the metaphysician. The passage is as follows: 'Socrates concerned himself with ethical virtues, and he first sought the abstract definitions of these. Before him Democritus had only concerned himself with a part of Physics, and defined but the Hot and the Cold. But Socrates, reasonably (εὐλόγως), sought the Essence of Things, *i.e.* sought *what exists.*'

Moreover, in another passage (lib. iii. c. 2) Aristotle reproaches Aristippus for having rejected science, and concerned himself solely with morals. This is surely negative evidence that Socratês was not to be blamed for the same opinion; otherwise he would have been also mentioned.

It was a natural mistake to suppose that Socrates was only a moralist, seeing that his principal topics were always Man and Society, and never Physical speculations, which he deemed beyond the reach of human intellect. If, however,

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* *Metaph.* xiii. 4.

Socrates had been merely a moralist, his place in the history of Philosophy would not have been what it is; no Plato, no Aristotle would have called him master. He made a new epoch. The previous philosophers had directed their attention to external Nature, endeavouring to explain its phenomena; he gave up all such speculations, and directed his attention solely to the nature of Knowledge.

The reader may now begin to appreciate the importance of Definitions in the Socratic Method, and may understand why Socrates did not himself invent systems, but only a Method. He likened himself to a Midwife, who, though unable to bring forth children herself, assisted women in their labours. He believed that in each man lay the germs of wisdom. He believed that no science could be taught; only drawn out. To borrow the ideas of another was not to learn; to guide oneself by the judgment of another was blindness. The philosophers, who pretended to teach everything, could teach nothing; and their ignorance was manifest in the very pretension. Each man must conquer truth for himself, by rigid struggle with himself. He, Socrates, was willing to assist any man when in the pains of labour: he could do no more.

Such being the Method, we cannot wonder at his having attached himself to Ethical rather than to Physical speculations. His philosophy was a realization of the inscription at Delphos—*Know Thyself.* It was in himself that he found the ground of certitude which was to protect him against scepticism. It was therefore moral science which he prized above all others. Indeed, we have great reason to believe that his energetic denouncement of Physical speculations as reported by Xenophon, was the natural, though exaggerated, conclusion to which he had been hurried by a consideration of the manifold absurdities into which they drew the mind, and the scepticism which they induced. There could be nothing but uncertainty on such subjects.

'I have not leisure for such things,' he is made to say by Plato, 'and I will tell you the reason: I am not yet able, according to the Delphic Inscription, to *Know myself*; and it appears to me very ridiculous, while ignorant of myself, to inquire into what I am not concerned in.' * That he did, however, at one period occupy himself with them is clear from other sources, and is a point in the comedy of the *Clouds*, where he is represented 'air-treading and speculating about the sun,'—*ἀεροβατῶ καὶ περιφρονῶ τὸν ἥλιον*,—and his disciples seeking things hidden underground—*τὰ κατὰ γῆς*. This has led many to suppose that Aristophanes knew nothing whatever of Socrates, but only took him as an available comic type of the Sophists,—a supposition to which there are several objections. Firstly, it is not usual in satirists to select for their butt a person of whom they know nothing. Secondly, Socrates, of all Athenians, was the most notorious, and most easily to be acquainted with in a general way. Thirdly, he could not be a type of the Sophists, in as far as related to physical speculations, since we well know the Sophists disregarded them. Fourthly, he did occupy himself with Physics early in his career, although in after-life he regarded such speculations as trivial.

It was quite possible that Aristophanes should have made no such nice discrimination between the dialectical quibbling of Socrates and that of the Sophists, as would prevent him from representing Socrates teaching 'the art to make the worse appear the better reason;'† but it is scarcely credible that he should have made so flagrant a mistake as to accuse Socrates of busying himself with Physics, when every one of the audience could answer that Socrates never troubled himself at all about it. In our day Proudhon and Louis Blanc are often classed together as teachers of the same Socialist doctrines; or Strauss and Feuerbach as teachers of the same theological doctrines; but no satirist would laugh at Louis Blanc for his astronomical speculations, or at Strauss for his devotion to the Microscope. The Aristophanic evidence, therefore, seems perfectly admissible as respects the physical speculations of Socrates at or about the time when the *Clouds* was produced. If they were afterwards relinquished, it was because they led to no certainty.

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* *Phædrus*, p. 8.

† *Nubes*, v. 112-15.

That Philosophy, and not Morals, was really the aim of Socrates, is clear from his subordination of all morals to science. He considers Virtue to be identical with Knowledge.* Only the wise man, said he, can be brave, just, or temperate. Vice of every kind is Ignorance; and involuntary, because ignorant. If a man is cowardly, it is because he does not rightly appreciate the importance of life and death. He thinks death an evil, and flees it. If he were wise, he would know that death is a good thing, or, at the worst, an indifferent one, and therefore would not shun it. If a man is intemperate, it is because he is unable to estimate the relative value of present pleasure and future pain. Ignorance misleads him. It is the nature of man to seek good and shun evil: he would never seek evil, knowing it to be such; if he seeks it, he mistakes it for good: if he is intemperate, it is because he is unwise.

Nor is it difficult to trace the origin of this conception in his mind. The Pythian oracle had declared him to be the wisest of men. The assertion greatly puzzled him, for he found on deep introspection that he knew nothing; all his fancied knowledge was that conceit of knowledge without the reality, which he saw puffing up other men; and his sole distinction was that *he* knew the depth of his own ignorance, while *they* believed themselves to be knowing; and it was because he knew this that he understood the meaning of the oracle. Thus much we have on his explicit authority. If we now consider that his title of the 'wisest' was owing to the profound consciousness of the unreality of all which hitherto had passed for wisdom (the proof of which was exposed by means of his cross-examining Elenchus), we shall be able to understand how it was he came to make his Method in and for itself the great aim of Philosophy, and how instead of desiring to make converts to any system, or to gain acceptance for any special theories on physics or ethics, he always and everywhere desired to awaken the cross-examining spirit in the minds of his hearers, so that each in his own turn might awaken it in others, because in this, and this alone, consisted real Wisdom. Previous philosophies had shown the futility of speculation; certitude was nowhere to be had; all such theories were but the conceit of knowledge. The Method which he taught was that by which alone man could become wiser and better.

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* Φρονήσεις ᾤετο εἶναι πάσας τὰς ἀρετάς.—ARISTOT. *Ethic. Nicomach.* vi. 13. PLATO, in the *Meno*, makes him maintain that Virtue cannot be Science, cannot be taught. But this is not Socratic. 'Whether Virtue can be taught was a question much agitated in the time of Socrates, who appears to give contradictory decisions on different occasions. Comp. PLATO, *Meno*, pp. 96, 98, with *Protagoras*, p. 361, in the latter of which passages he censures his own inconsistency, in first denying that Virtue can be taught, and then maintaining that Virtue is Science. Ascending to XENOPHON, *Mem.* i. 2, 19, Socrates seems to have adopted the common-sense view that Virtue is partly matter of teaching, partly of practice (ἀσκητόν), and partly of natural disposition. But XENOPHON was unconscious of the logical difficulty of reconciling this with that identification of Virtue with Science or Wisdom which he elsewhere distinctly attributes to his master.'—THOMPSON'S Note to *Butler's History of Philosophy*, i. 374.

It is clear that the novelty of the Method so completely fascinated him as to prevent his detecting the confusion he made between end and means. And the reader may understand how such a confusion might very naturally have maintained itself, if he reflects how very analogous is the pursuit of purely mathematical science by hundreds who care nothing for the applications of mathematics. Lying at the base of all physical science is a great and complex science of Quantity,—the one indispensable Instrument by means of which Knowledge becomes Science (for Science is only quantitative knowledge); but so vast and so complex is this Instrument, that numerous intellects are constantly engaged in studying and perfecting it, never once withdrawn from it by any attempt at application. In a similar way Socrates, and for the most part Plato likewise, cared exclusively for Method; perfecting the Instrument of search, rather than seeking.

Although Socrates was not the first to teach the doctrine of the immortality of the soul, he was the first to give it a philosophical basis. Nor can we read without admiration the arguments by which he anticipated writers on Natural Theology, by pointing out the evidences of a beneficent Providence. Listen to Xenophon:—

'I will now relate the manner in which I once heard Socrates discoursing with Aristodemus, surnamed *the Little*, concerning the Deity; for observing that he neither prayed nor sacrificed to the Gods, but, on the contrary, ridiculed and laughed at those who did, he said to him:—

'Tell me, Aristodemus, is there any man whom you admire on account of his merit? Aristodemus having answered "Many,"—Name some of them, I pray you. I admire, said Aristodemus, Homer for his Epic poetry, Melanippides for his dithyrambics, Sophocles for tragedy, Polycletus for statuary, and Zeuxis for painting.

'But which seems to you most worthy of admiration, Aristodemus;—the artist who forms images void of motion and intelligence, or one who hath the skill to produce animals that are endued not only with activity, but understanding?—The latter, there can be no doubt, replied Aristodemus, provided the production was not the effect of chance, but of wisdom and contrivance.—But since there are many things, some of which we can easily see the use of, while we cannot say of others to what purpose they were produced, which of these, Aristodemus, do you suppose the work of wisdom?—It should seem the most reasonable to affirm it of those whose fitness and utility are so evidently apparent.

'But it is evidently apparent that He who at the beginning made man, endued him with senses because they were good for him; eyes, wherewith to behold whatever was visible; and ears, to hear whatever was to be heard; for say, Aristodemus, to what purpose should odours be prepared, if the sense of smelling had been denied? or why the distinctions of bitter and sweet, of savoury and unsavoury, unless a palate had been likewise given, conveniently placed, to arbitrate between them and declare the difference? Is not that Providence, Aristodemus, in a most eminent manner conspicuous, which, because the eye of man is so delicate in its contexture, hath therefore prepared eyelids like doors, whereby to secure it, which extend of themselves whenever it is needful, and again close when sleep approaches? Are not these eyelids provided as it were with a fence on the edge of them, to keep off the wind and guard the eye? Even the eyebrow itself is not without its office, but, as a penthouse, is prepared to turn off the sweat, which, falling from the forehead, might enter and annoy that no less tender than astonishing part of us. Is it not to be admired that the ears should take in sounds of every sort, and yet are not too much filled by them? That the foreteeth of the animal should be formed in such a manner as is evidently best suited for the cutting of its food, as those on the side for grinding it to pieces? That the mouth, through which this food is conveyed, should be placed so near the nose and eyes as to prevent the passing unnoticed whatever is unfit for nourishment; while Nature, on the contrary, hath set at a distance and concealed from the senses all that might disgust or any way offend them? And canst thou still doubt, Aristodemus, whether a disposition of parts like this should be the work of chance, or of wisdom and contrivance?—I have no longer any doubt, replied Aristodemus; and, indeed, the more I consider it, the more evident it appears to me that man must be the master-piece of some great artificer; carrying along with it infinite marks of the love and favour of Him who hath thus formed it.

'And what thinkest thou, Aristodemus, of that desire in the individual which leads to the continuance of the species? Of that tenderness and affection in the female towards her young, so necessary for its preservation? Of that unremitted love of life, and dread of dissolution, which take such strong possession of us from the moment we begin to be?—I think of them, answered Aristodemus, as so many regular operations of the same great and wise Artist, deliberately determining to preserve what he hath made.

'But, farther (unless thou desirest to ask me questions), seeing, Aristodemus, thou thyself art conscious of reason and intelligence, supposest thou there is no intelligence elsewhere? Thou knowest thy body to be a small part of that wide extended earth which thou everywhere beholdest: the moisture contained in it, thou also knowest to be a small portion of that mighty mass of waters, whereof seas themselves are but a part, while the rest of the elements contribute out of their abundance to thy formation. It is the soul then alone, that intellectual part of us, which is come to thee by some lucky chance, from I know not where. If so be there is indeed no intelligence elsewhere: and we must be forced to confess that this stupendous universe, with all the various bodies contained therein—equally amazing, whether we consider their magnitude or number, whatever their use, whatever their order—all have been produced, not by intelligence, but by chance!—It is with difficulty that I can suppose otherwise, returned Aristodemus; for I behold none of those Gods whom you speak of as making and governing all things; whereas I see the artists when at their work here among us.—Neither yet seest thou thy soul, Aristodemus, which, however, most assuredly governs thy body; although it may well seem, by thy manner of talking, that it is chance, and not reason, which governs thee.

'I do not despise the Gods, said Aristodemus: on the contrary, I conceive so highly of their excellence, as to suppose they stand in no need either of me or of my services.—Thou mistakest the matter, Aristodemus; the greater magnificence they have shown in their care of thee, so much the more honour and service thou owest them.—Be assured, said Aristodemus, if I once could be persuaded the Gods take care of man, I should want no monitor to remind me of my duty.—And canst thou doubt, Aristodemus, if the Gods take care of man? Hath not the glorious privilege of walking upright been alone bestowed on him, whereby he may with the better advantage survey what is around him, contemplate with more ease those splendid objects which are above, and avoid the numerous ills and inconveniences which would otherwise befall him? Other animals indeed they have provided with feet, by which they may remove from one place to another; but to man they have also given hands, with which he can form many things for his use, and make himself happier than creatures of any other kind. A tongue hath been bestowed on every other animal; but what animal, except man, hath the power of forming words with it, whereby to explain his thoughts, and make them intelligible to others?

'But it is not with respect to the body alone that the Gods have shown themselves thus bountiful to man. Their most excellent gift is that soul they have infused into him, which so far surpasses what is elsewhere to be found; for by what animal, except man, is even the existence of those Gods discovered, who have produced and still uphold, in such regular order, this beautiful and stupendous frame of the universe? What other species of creature is to be found that can serve, that can adore them? What other animal is able, like man, to provide against the assaults of heat and cold, of thirst and hunger? that can lay up remedies for the time of sickness, and improve the strength nature has given by a well-proportioned exercise? that can receive like him information or instruction; or so happily keep in memory what he hath seen, and heard, and learnt? These things being so, who seeth not that man is, as it were, a God in the midst of this visible creation? so far doth he surpass, whether in the endowments of soul or body, all animals whatsoever that have been produced therein; for if the body of the ox had been joined to the mind of man, the acuteness of the latter would have stood him in small stead, while unable to execute the well-designed plan; nor would the human form have been of more use to the brute, so long as it remained destitute of understanding! But in thee, Aristodemus, hath been joined to a wonderful soul a body no less wonderful; and sayest thou, after this, the Gods take no thought for me? What wouldst thou then more to convince thee of their care?

'I would they should send and inform me, said Aristodemus, what things I ought or ought not to do, in like manner as thou sayest they frequently do to thee.—And what then, Aristodemus? supposest thou, that when the Gods give out some oracle to all the Athenians they mean it not for thee? If by their prodigies they declare aloud to all Greece, to all mankind, the things which shall befall them, are they dumb to thee alone? And art thou the only person whom they have placed beyond their care? Believest thou they would have wrought into the mind of man a persuasion of their being able to make him happy or miserable, if so be they had no such power? or would not even man himself, long ere this, have seen through the gross delusion? How is it, Aristodemus, thou rememberest or remarkest not, that the kingdoms and commonwealths most renowned as well for their wisdom as antiquity, are those whose piety and devotion hath been the most observable? and that even man himself is never so well disposed to serve the Deity as in that part of life when reason bears the greatest sway, and his judgment is supposed in its full strength and maturity? Consider, my Aristodemus, that the soul which resides in thy body can govern it at pleasure; why then may not the soul of the universe, which pervades and animates every part of it, govern it in like manner? If thine eye hath the power to take in many objects, and these placed at no small distance from it, marvel not if the eye of the Deity can at one glance comprehend the whole. And as thou perceivest it not beyond thy ability to extend thy care, at the same time, to the concerns of Athens, Egypt, Sicily, why thinkest thou, my Aristodemus, that the Providence of God may not easily extend itself through the whole universe?

'As therefore, among men, we make best trial of the affection and gratitude of our neighbour by showing him kindness, and discover his wisdom by consulting him in his distress, do thou in like manner behave towards the Gods; and if thou wouldst experience what their wisdom and what their love, render thyself deserving the communication of some of those divine secrets which may not be penetrated by man, and are imparted to those alone who consult, who adore, who obey the Deity. Then shalt thou, my Aristodemus, understand there is a Being whose eye pierceth throughout all nature, and whose ear is open to every sound; extended to all places, extending through all time; and whose bounty and care can know no other bound than those fixed by his own creation.

'By this discourse, and others of the like nature, Socrates taught his friends that they were not only to forbear whatever was impious, unjust, or unbecoming before man; but even when alone they ought to have a regard to all their actions, since the Gods have their eyes continually upon us, and none of our designs can be concealed from them.' *

To this passage we must add another equally deserving of attention:—

'Even among all those deities who so liberally bestow on us good things, not one of them maketh himself an object of our sight. And He who raised this whole universe, and still upholds the mighty frame, who perfected every part of it in beauty and in goodness, suffering none of these parts to decay through age, but renewing them daily with unfading vigour, whereby they are able to execute whatever he ordains with that readiness and precision which surpass man's imagination; even He, the supreme God, who performeth all these wonders, still holds himself invisible, and it is only in his works that we are capable of admiring him. For consider, my Euthydemus, the sun, which seemeth as it were set forth to the view of all men, yet suffereth not itself to be too curiously examined; punishing those with blindness who too rashly venture so to do; and those ministers of the Gods, whom they employ to execute their bidding, remain to us invisible; for though the thunderbolt is shot from on high, and breaketh in pieces whatever it findeth in its way, yet no one seeth it when it falls, when it strikes, or when it retires; neither are the winds discoverable to our sight, though we plainly behold the ravages they everywhere make, and with ease perceive what time they are rising. And if there be

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* *Memorabilia*, i. 4.

anything in man, my Euthydemus, partaking of the divine nature, it must surely be the soul which governs and directs him; yet no one considers this as an object of his sight. Learn therefore not to despise those things which you cannot see; judge of the greatness of the power by the effects which are produced, and reverence the Deity.'[*]

In conclusion we must notice the vexed question of the Dæmon of Socrates. The notion most generally current is that he believed himself accompanied by a Dæmon, or Good Angel, who whispered counsels in his ear, and forewarned him on critical occasions. This has been adduced as evidence of his 'superstition;' and one writer makes it a text to prove that Socrates was mad.[†] Olympiodorus said that the Dæmon only meant Conscience, an explanation which, while it effaces the peculiar characteristics of the conception, is at the same time totally inapplicable to those cases when the 'Dæmonic voice' spoke to Socrates concerning the affairs of his friends, as we read in Plato's *Theages*. By other writers the Dæmon has been considered as purely allegorical.

The first point necessary to be distinctly understood is, that Socrates believed in no special Dæmon at all; and to translate Plutarch's treatise into *De Genio Socratis*, and hence to speak of *le démon de Socrate*, is gross misconception. Nowhere does Socrates, in Plato or Xenophon, speak of *a* genius or demon, but always of a *dæmonic something* (τὸ δαιμόνιον, δαιμόνιόν τι), or of a *sign*, a *voice*, a *divine sign*, a *divine voice*.[‡] The second point necessary to be remembered is, that this 'divine voice' was only an *occasional* manifestation, and exercised only a *restraining* influence. On the great critical occasions of his life, if the voice warned him against any step he was about to take, he unhesitatingly obeyed it; if the voice was unheard, he concluded that his proposed step was agreeable to the Gods. Thus, when on his trial, he refused to prepare any defence, because when he was about to begin it the voice restrained him, whereupon he resigned himself to the trial, convinced that if it were the pleasure of the Gods that he should die, he ought in no wise to struggle—if it were their pleasure that he should be set free, defence on his part was needless.

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[*] *Memorabilia*, iv. 3.

[†] Lélut, *Du Démon de Socrate*, 1836. A new edition of this work appeared in 1856, and excited a 'sensation.'

[‡] See passages cited in Zeller, ii. 28. Mr. Thompson in his note to Butler, i. 375, says:—'Clemens Alexandrinus in one passage *conjectures* that the δαιμόνιον of Socrates may have been a familiar genius. *Strom.* v. p. 592. This conjecture becomes an assertion in Lactantius (*Inst. D.* ii. 14), who converts the *dæmonium* into *dæmon*. Apuleius, it is true, had already led the way to this error in his treatise *De Deo Socratis*. It is adopted without scruple by Augustine and other Christian writers; and, as might have been expected, by Ficinus and the earlier moderns, as Stanley and Dacier, in whose writings the *dæmonium* appears full-fledged as 'an attendant spirit' or 'good angel.'

This is his own explicit statement; and surely in a Christian country abounding in examples of persons believing in direct intimations from above, there can be little difficulty in crediting such a statement. Socrates was a profoundly religious man; he was moreover, as we learn from Aristotle, a man of that bilious melancholic temperament* which has in all times been observed in persons of unusual religious fervour, such as is implied in those momentary exaltations of the mind which are mistaken for divine visits; and when the rush of thought came upon him with strange warning voices, he believed it was the Gods who spoke directly to him. Unless we conceive Socrates as a profoundly religious man, we shall misconceive the whole spirit of his life and teaching. In many respects he was a fanatic, but only in the noble sense of the word: a man, like Carlyle, intolerant, vehement, 'possessed' by his ideas, but, like Carlyle, preserved from all the worst consequences of such intolerance and possession by an immense humour and a tender heart. His saturnine melancholy was relieved by laughter, which softened and humanized a spirit otherwise not less vehement than that of a Dominic or a Calvin. Thus strengthened and thus softened, Socrates stands out as one of the bravest, truest, wisest of mankind.

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* Φύσιν μελαγχολικήν, Aristotle: *Problem.* 30.

FIFTH EPOCH.

Development of Ethics consequent on the Socratic circumscription of the aims of Philosophy.

CHAPTER I.

THE MEGARICS.

EUCLID.

THE companions of Socrates quitted Athens after his death: some of them followed Euclid to Megara.

'Several philosophers,' says Cicero, 'drew from the conversations of Socrates very different results; and, according as each adopted views which harmonized with his own, they in their turn became heads of philosophical schools all differing amongst each other.' It is one of the peculiarities of the Subjective Method, to adapt itself indiscriminately to all sorts of systems. The Objective Method is confined to one: if various and opposing systems spring from it, they are an erroneous or imperfect application of it. We must not be surprised therefore to find many contradictory systems claiming the parentage of Socrates. But we must be on our guard against supposing that this adaptation to various systems is a proof of the excellence of the Socratic Method. It is only a proof of its vagueness. It may be accepted as a sign of the great influence exercised upon succeeding philosophers; it is no sign that the influence was in the right direction.

As we said, Socrates had no school; he taught no system. He exhibited a Method; and this Method his hearers severally applied. Around him were men of various ages, various temperaments, and various opinions. He discoursed with each upon his own subject: with Xenophon on politics; with Theages or Theætetus on science; with Antisthenes on morals; with Ion on poetry. Some were convinced by him; others were merely refuted. The difference between the two is great. Of those who were convinced, the so-called Socratic Schools were formed; those who were only refuted became his enemies. But, of the former, some were naturally only more or less convinced; that is, were willing to adopt his opinions on some subjects, but remained stubborn on others. These are the imperfect Socratists. Among the latter was Euclid.

Euclid, who must not be confounded with the great Mathematician, was born at Megara; date probably between 450 and 440 B.C. He had early imbibed a great love of philosophy, and had diligently studied the writings of Parmenides and the other Eleatics. From Zeno he acquired great facility in dialectics; and this continued to be his chief excellence, even after his acquaintance with Socrates, who reproved him for it as sophistical.

His delight in listening to Socrates was so great that he frequently exposed his life to do so. A decree was passed, in consequence of the enmity existing between Athens and Megara, that any inhabitant of Megara found in Athens should forfeit his life; Euclid, however, braved the penalty. He frequently came to Athens at night, disguised as a female. The distance was twenty miles. At the end of his journey he was recompensed by the fascinating conversation of Socrates; and he returned to meditate on the results of their arguments.

Brucker's supposition that a rupture was caused between them in consequence of Socrates having reproved Euclid's disputatious tendency, is wholly without foundation, and seems contradicted by the notorious fact that when, on the death of Socrates, Plato and the majority of the disciples retired to Megara, in fear of some popular outbreak of the

Athenians, who were in a state of rage against all the philosopher's friends, Euclid received them well. Bound by the same ties of friendship towards the illustrious martyr, and sharing some of his opinions, the Socratists made some stay in Megara. Differences however arose, as they will amongst all communities of the kind. Plato and some others returned to Athens as soon as the state of the public mind admitted their doing so with safety. The rest remained with Euclid.

Euclid agreed with the Eleatics in maintaining that there was but One unalterable Being, to be known by Reason only. This One Being was not simply *The One*; neither was it simply Intelligence; it was *The Good.* This One Being received various names according to its various aspects: thus it was sometimes Wisdom (φρόνησις); sometimes God (θεός); at others Reason (νοῦς); and so forth. This One Good (ἓν τὸ ἀγαθόν) is the only Being that really *exists*; everything opposed to it has nothing but a phenomenal, transitory existence.

Such is the outline of his doctrine, as presented by Diogenes Laertius. In it the reader will have no difficulty in detecting both the Eleatic and Socratic elements. The conception of God as τὸ ἀγαθόν—the Good—is Socratic; and the denial of any existence to things opposed to the Good is an explanation of that passage in Plato's *Republic*, where Socrates declares God not to be the author of all things, but only of such as are good.*

The Megaric doctrine is therefore the Eleatic doctrine, with an Ethical tendency borrowed from Socrates, who taught that virtue was not any partial cultivation of the human mind, but constitutes the true and entire essence of the rational man, and indeed of the whole universe. The identification of Virtue with Wisdom is also Socratic.

With respect to Euclid's dialectics there is one point, often alluded to, variously interpreted, and which is in direct opposition to the Method of Socrates. In refuting his adversaries he did not attack the premisses, but the conclusion.* This is certainly not the manner of Socrates, who always managed to draw new conclusions from old premisses, and who, as Xenophon says, proceeded from the generally known to the less known. As if to mark this distinction more completely, we are told that Euclid rejected the analogical mode of reasoning (τὸν διὰ παραβολῆς λόγον). If, said he, the things compared are alike, it is better to confine the attention to that originally in question; if the things compared are unlike, there must be error in the conclusion. This precept strikes into the weakness of Socrates' method of induction; which was a species of analogical reasoning not of the highest order.

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* Μὴ πάντων αἴτιον τὸν θεὸν, ἀλλὰ τῶν ἀγαθῶν.—ii. 100.

In dialectics therefore we see Euclid following out the Eleatic tendency, and carrying forward the speculations of Zeno. It was this portion of his doctrine that his immediate followers, Eubulides, Diodorus, and Alexinus, undertook to carry out. The Socratic element was further developed by Stilpo.

'The majority of the later members of the Megaric School,' says Ritter, 'are famous either for the refutation of opposite doctrines, or for the invention and application of certain fallacies; on which account they were occasionally called Eristici and Dialectici. Still it may be presumed that they did not employ these fallacies for the purposes of delusion, but of instructing rash and hasty thinkers, and exemplifying the superficial vanity of common opinion. At all events it is certain that they were mainly occupied with the forms of thought, more perhaps with a view to the discovery of particular rules, than to the foundation of a scientific system or method.

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* DIOG. LAERT. ii. 107. This is paraphrased by ENFIELD into the following contradictory statement:—'He judged that legitimate argumentation consists in deducing fair conclusions from acknowledged premisses.'—*Hist. of Phil.* i. 199.

CHAPTER II.

THE CYRENAICS.

ARISTIPPUS.

AMONG the 'imperfect Socratists' we must rank Aristippus, the founder of the Cyrenaic School, which borrowed its name from the birthplace of its founder—Cyrene, in Africa.

Aristippus was descended from wealthy and distinguished parents, and was consequently thrown into the vortex of luxurious debauchery which then characterized the colony of Minyæ. He came over to Greece to attend the Olympic games; there he heard so much of the wisdom of Socrates that he determined on listening to his enchanting discourse. He made Socrates an offer of a large sum of money, which, as usual, was declined. The great Talker did not accept money; but he willingly admitted Aristippus among the number of his disciples. It is commonly asserted that the pupil did not agree well with his master, and that his fondness for pleasure was offensive to Socrates. There is no good authority for such an assertion. He remained with Socrates until the execution of the latter; and there was no bond on either side to have prevented their separation as soon as they disagreed. The impression seems to have originated in the discussion reported by Xenophon,* wherein Aristippus expresses his political indifference, and Socrates, by an exaggerated extension of logic, endeavours to prove his views to be absurd. But this is simply a divergence of

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Memorabilia, ii. 1.

opinion, such as must have existed between Socrates and many of his followers. It merely shows that Aristippus thought for himself. Socrates with such men as Aristippus and Alcibiades reminds one of Dr. Johnson with the 'young bloods' Topham Beauclerk and Bennet Langton: he was wise enough and tolerant enough not to allow his virtue to be scandalized by their love of pleasure.

From Athens he went to Ægina, where he met with Laïs, the world-renowned courtesan, whom he accompanied to Corinth. On his way from Corinth to Asia he was shipwrecked on the island of Rhodes. On the sea-coast he discovered a geometrical diagram, and exclaimed, 'Take courage; I see here the footsteps of men.' On arriving at the principal town, he managed to procure for himself and friends a hospitable reception. He used to say, 'Send two men amongst strangers, and you will see the advantage of the philosopher.'

Aristippus was one of those

> 'Children of the Sun, whose blood is fire;'

but to strong sensual passions he united a calm regulative intellect. Prone to luxury, he avoided excess. Easy and careless in ordinary affairs, he had great dominion over his desires. Pleasure was his grand object in life; but he knew how to temper enjoyment with moderation. In disposition he was easy and yielding, a 'fellow of infinite mirth,' a philosopher whose brow was never 'sicklied o'er with the pale cast of thought.' He had none of that dignity which mistakes a stiff neck for healthy virtue. He had no sternness. Gay, brilliant, careless, and enjoying, he became the ornament and delight of the Court of Dionysius;—that Court already illustrious by the splendid genius of Plato and the rigid abstinence of Diogenes. The grave deportment of Plato and the savage virtue of Diogenes had less charm for the Tyrant than the easy gaiety of Aristippus, whose very vices were elegant. His ready wit was often put to the test. On one occasion three *hetæræ* were presented for him to make a choice: he took them all three, observing that it had been fatal even to Paris to make a choice. On another occasion, in a dispute with Æschines, who was becoming violent, he said, 'Let us give over. We have quarrelled, it is true, but I, as your senior, have a right to claim the *precedency in the reconciliation.*'[*] In his old-age he appears to have returned to Cyrene, and there opened his school.

His philosophy, as Hegel remarks, takes its colour from his personality. So individual is it, that we should have passed it over entirely, had it not been a precursor of Epicureanism. Its relation to Socrates is also important.

In the only passage in which, as far as we know, Aristotle[†] mentions Aristippus, he speaks of him as a Sophist. What does this mean? Was he one of the professed Sophists? No. It means, we believe, that he shared the opinion of the Sophists respecting the uncertainty of Science. That he did share this opinion is evident from Sextus Empiricus,[‡] who details his reasons: such as, that external objects make different impressions on different senses; the names which we impose on these objects express our sensations, but do not express the things; there is no *criterium* of truth; each judges according to his impressions; none judge correctly.

In so far he was a Sophist; but, as the disciple of Socrates, he learned that the *criterium* of truth must be sought within. He dismissed with contempt all physical speculations, as subjects beyond human comprehension, and concentrated his researches upon the moral constitution of man.

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[*] Several of his repartees are recorded by LAERTIUS. We add the best of them:—Scinus, the treasurer of Dionysius, a man of low character but immense wealth, once showed Aristippus over his house. While he was expatiating on the splendour of every part, even to the floors, the philosopher spat in his face. Scinus was furious. 'Pardon me,' exclaimed Aristippus, 'there was no other place where I could have spat with decency.' One day, in interceding with the Tyrant for a friend, he threw himself on his knees. Being reproached for such want of dignity, he answered, 'Is it my fault if Dionysius has his ears in his feet?' One day he asked the Tyrant for some money. Dionysius made him own that a philosopher had no need of money. 'Give, give,' replied Aristippus, 'and we will settle the question at once.' Dionysius gave. '*Now*,' said the philosopher, 'I have no need of money.'

[†] *Metaph.* iii. 2.

[‡] *Adv. Math.* vii. 173.

In so far he was a Socratist. But, although he took his main direction from Socrates, yet his own individuality quickly turned him into bye-paths which his master would have shunned. His was not a scientific intellect. Logical deduction, which was the rigorous process of his master, suited neither his views nor his disposition. He was averse from abstract speculations. His tendency was directly towards the concrete. Hence, while Socrates was preaching about The Good, Aristippus wished to specify what it was; and resolved it into Pleasure. It was the pith and kernel of Socrates' Ethical system, that Happiness was the aim and desire of all men—the motor of all action; men only erred because of erroneous notions of what constituted Happiness. Thus the wise man alone knew that to endure an injury was better than to inflict it; he alone knew that immoderate gratification of the senses, being followed by misery, did not constitute Happiness, but the contrary. Aristippus thought this too vague. He not only reduced this general idea to a more specific one, namely, Pleasure; he endeavoured to show how truth had its only *criterium* in the sensation of pleasure or of pain. Of that which is without us we can know nothing truly; we only know through our senses, and our senses deceive us with respect to objects. But our senses do not deceive us with respect to our sensations. We may not perceive things truly; but it is true that we perceive. We may doubt respecting external objects; we cannot doubt respecting our sensations. Amongst those sensations we naturally seek the repetition of such as are pleasurable, and shun those that are painful.

Pleasure, then, as the only positive good, and as the only positive test of what was good, he declared to be the end of life; but, inasmuch as for constant pleasure the soul must preserve its dominion over desires, this pleasure was only another form of the Socratic temperance. It is distinguished from the Socratic conception of Pleasure, however, in being positive, and not merely the gratification of a want. In the *Phædo*, Socrates, on being released from his chains, reflects upon the intimate connection of pleasure and pain; and calls the absence of pain pleasure. Aristippus, on the contrary, taught that pleasure is not the mere removal of pain: they are both positive emotions; non-pleasure and non-pain are not emotions, but as it were the sleep of the soul.*

In the application of this doctrine to ethics, Aristippus betrays both his Sophistic and Socratic education. With the Sophists he regarded pleasure and pain as the proper *criteria* of actions; no action being in itself either good or bad, but only such according to convention. With Socrates, however, he regarded the advantages acquired by injustice to be trifling; whereas the evils and apprehensions of punishment are considerable; and pleasure was the result, not of individual prosperity alone, but of the welfare of the whole State.

In reviewing the philosophy, such as it was, of Aristippus, we cannot fail to be struck with the manifest influence of Socrates; although his method was not followed, we see the ethical tendency predominating. In the Megaric School the abstract idea of The Good (τὸ ἀγαθόν) of Socrates, was grounded on the Eleatic conception of The One. In the Cyrenaic, the abstract conception was reduced to the concrete, Pleasure; and this became the only ground of certitude, and morals the only science. In the Cynic School we shall see a still further development in this direction.

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* DIOG. LAERT. ii. 89.

CHAPTER III.

THE CYNICS.

ANTISTHENES AND DIOGENES.

CYNICISM imposed on antiquity as it has imposed on many modern imaginations, by the energy of its self-denials; but it is a 'blasphemy against the divine beauty of life,' blasphemy against the divinity of man. To lead the life of a dog is *not* the ideal for man.

Nevertheless there were some points both in the characters and doctrines of the founders of this School which may justly claim the admiration of mankind. Their contemporaries regarded them with feelings mingled with awe. We at least may pay a tribute to their energy.

Antisthenes was born at Athens, of a Phrygian mother. In early life he distinguished himself at the battle of Tanagra. After this he studied under Gorgias, the Sophist, and established a school for himself; but, captivated by the practical wisdom of Socrates, he ceased to teach, and became once more a pupil; nay more, he persuaded all his pupils to come with him to Socrates, and there learn true wisdom. This is genuine modesty, such as philosophers have rarely exhibited. He was then somewhat advanced in life; his opinions on many points were too deeply rooted to be exchanged for others; but the tendency of the Socratic philosophy towards Ethics, and the character of that system as leading to the moral perfection of man, seemed entirely to captivate him. It will be remembered that Socrates did not teach positive doctrines; he enabled each earnest thinker to evolve a doctrine for himself. All Socrates did, was to give an impulsion in a certain direction, and to furnish a certain Method. His real disciples accepted the Method; his imperfect disciples only accepted the impulsion. Antisthenes was of the latter. Accordingly, his system was essentially personal. He was stern, and his doctrine was rigid; he was proud, and his doctrine was haughty; he was cold, and his doctrine was unsympathizing and self-isolating; he was brave, and his doctrine was a battle. The effeminacy of the luxurious he despised; the baseness of courtiers and flatterers he hated. He worshipped Virtue; but it was Virtue sometimes ferocious and unbending.

Even whilst with Socrates he displayed his contempt of ordinary usages, and his pride in differing from other men. He used to appear in a threadbare cloak, with ostentatious poverty. Socrates saw through it all, and exclaimed, 'I see your vanity, Antisthenes, peering through holes in your cloak!' How different was this from Socrates! He, too, had inured himself to poverty, to heat and to cold, in order that he might bear the chances of fortune; but he made no virtue of being ragged, hungry, and cold. Antisthenes thought he could only preserve his virtue by becoming a savage. He wore no garment except a coarse cloak; allowed his beard to grow; carried a wallet and a staff; and renounced all diet but the simplest. His manners corresponded to his appearance. Stern, reproachful, and bitter in his language; careless and indecent in his gestures. His contempt of all sensual enjoyment was expressed in his saying, 'I would rather be mad than sensual!' *

On the death of Socrates he formed a school, and chose for his place of meeting a public place in that quarter of Athens called the Cynosarges, from which some say the sect of Cynics derives its name; others derive it from the snarling propensities of the founder, who was frequently called 'The Dog.' As he grew old, his gloomy temper became morose;

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* It is thus we would interpret DIOG. LAERT. vi. 3:—*Μανείην μᾶλλον ἢ ἡσθείην.* RITTER gives this version:—'I had rather go mad than experience pleasure;' which is an outrageous sentiment.

he became so insupportable that all his scholars left him, except Diogenes of Sinope, who was with him at his death. In his last agony, Diogenes asked him whether he needed a friend. 'Will a friend release me from this pain?' he replied. Diogenes gave him a dagger, saying, 'This will.' 'I wish to be freed from pain, not from life,' was the reply.

The contempt he uniformly expressed for mankind may be read in two of his sayings. Being asked, what was the peculiar advantage to be derived from philosophy, he answered, 'It enables me to keep company with myself.' Being told that he was greatly praised by many, 'Have I done anything *wrong*, then, that I am praised?' he asked.*

DIOGENES of Sinope is generally remembered as the representative of Cynicism; probably because more anecdotes of his life have descended to us. He was the son of a banker at Sinope, who was convicted of debasing the coin; an affair in which the son was also supposed to have been implicated. Diogenes fled to Athens. From the heights of splendour and extravagance, he found himself reduced to squalid poverty. The magnificence of poverty, which Antisthenes proclaimed,† attracted him. Poor, he was ready to embrace the philosophy of poverty; an outcast, he was ready to isolate himself from society; branded with disgrace, he was ready to shelter himself under a philosophy which branded all society. Having in his own person experienced how little wealth and luxury can do for the happiness of man, he was the more inclined to try the converse; having experienced how wealth prompts to vice, and how desires generate desires, he was willing to try the efficacy of poverty and virtue. He went to Antisthenes; was refused. He continued to offer himself to the Cynic as a scholar; the Cynic raised his knotty staff, and threatened to strike him if he did not depart. 'Strike!' replied Diogenes; 'you will not find a stick hard enough to conquer my perseverance.' Antisthenes, overcome, accepted him as a pupil.

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* DR. ENFIELD, who generally manages to introduce some blunder into every page, has spoiled this repartee, by giving it as a reply to the praise of a *bad* man. Yet the language of Diogenes Laertius is very explicit:—Πολλοί σε ἐπακινοῦσι (vi. 8).

† See XENOPHON: *Banquet.*

To live a life of virtue was henceforward his sole aim. That virtue was Cynicism. It consisted in the complete renunciation of all luxury—the subjugation of all sensual desires. It was a war carried on by the Mind against the Body. As with the Ascetics of a later day, the basis of a pure life was thought to be the annihilation of the Body; the nearer any one approached to such a suicide, the nearer he was to the ideal of virtue. The Body was vile, filthy, degraded, and degrading; it was the curse of man; it was the clog upon the free development of Mind; it was wrestled with, hated, and despised. This beautiful Body, so richly endowed for enjoyment, was regarded as the 'sink of all iniquity.'

Accordingly, Diogenes limited his desires to necessities. He ate little; and what he ate was of the coarsest. He tried to live upon raw meat and unboiled vegetables; but failed. His dress consisted solely of a cloak: when he asked Antisthenes for a shirt, he was told to fold his cloak in two; he did so. A wallet and a huge stick completed his accoutrements. Seeing a little boy drinking water out of his scooped hand, he threw away his cup, declaring it superfluous. He slept under the marble porticoes of the buildings, or in his celebrated Tub, which was his place of residence. He took his meals in public. In public he performed all those actions which decency has condemned to privacy. Decency of every kind he studiously outraged. It was a part of his system to do so. Everything, not in itself improper, ought, he said, to be performed publicly. Besides, he was wont to annoy people with indecent gestures; had he a philosophical reason for that also?

Doubts have been expressed respecting his Tub, which, it is thought, was only an occasional residence, and used by him as expressive of his contempt for luxury. We incline, however, to the tradition. It is in keeping with all we know of the man; and that a Tub could suffice for a domicile we may guess from Aristophanes.*

It is not difficult to imagine the effect created by the Cynics in the gay, luxurious city of Athens. There the climate, no less than the prevailing manners, incited every one to enjoyment. The Cynics told them that enjoyment was unworthy of men; that there were higher and purer things for man to seek. To the polished elegance of Athenian manners the Cynics opposed the most brutal coarseness they could assume. To the friendly flatteries of conversation they opposed the bitterest pungencies of malevolent frankness. They despised all men; and told them so.

Now, although we cannot but regard Cynicism as a very preposterous doctrine—as a feeble solution of the great problem of morals, and not a very amiable feebleness—we admit that it required some great qualities in its upholders. It required a great rude energy; a fanatical logicality of mind; a power over self,—narrow it may be, but still a power. These qualities are not common qualities, and therefore they command respect. Any deviation from the beaten path implies a certain resolution; a steady and consistent deviation implies force. All men respect force. The power of subjugating ordinary desires to one remote but calculated end, always impresses men with a sense of unusual power. Few are aware that to *regulate* desires is more difficult than to *subjugate* them—requires greater power of mind, greater will, greater constancy. Yet every one knows that abstinence is easier than temperance: on the same principle, it is easier to be a Cynic than a wise and virtuous Epicurean.

That which prevents our feeling the respect for the Cynics which the ancients seem to have felt, and which, indeed, some portions of the Cynical doctrine would otherwise induce us to feel, is the studious and uncalled-for outrages on common decency and humanity which Diogenes, especially, perpetrated. All the anecdotes that have come down to us seem to reveal a snarling and malevolent spirit, worshipping Virtue only because it was opposed to the vices of contemporaries; taking a pride in poverty and simplicity only because others sought wealth and luxury. It may be well to raise an earnest protest against the vices of one's age; but it is not well to bring virtue into discredit by the manner of the protest. Doubtless the Athenians needed reproof and reformation, and some exaggeration on the opposite side might have been allowed to the reformers. But Diogenes was so feeble in doctrine, so brutal in manner, that we doubt whether the debauchery of the first profligate in that profligate city were more reprehensible than the debauchery of pride which disgraced the Cynic. The whole character of the man is exhibited in one anecdote. Plato had given a splendid entertainment to some friends. Diogenes entered, unbidden, and stamping on the rich carpets, said, 'Thus I trample on the pride of Plato;' whereupon Plato admirably replied, 'With greater pride, O Diogenes.'

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* *Knights*, 793: the people are there spoken of as having been forced to live, during the war, in 'pigeon-holes and corners of turrets:' γυπαρίοις καὶ πυργιδίοις; unless, indeed, this is purely a metaphorical expression.

Diogenes, doubtless, practised great abstinence. He made a virtue of his necessity; and, being poor, resolved to be ostentatiously poor. The ostentation, being novel, was mistaken for something greater than it was; being in contradiction to the universal tendency of his contemporaries, it was supposed to spring from higher motives. There are men who bear poverty meekly; there are men who look upon wealth without envy, certain that wealth does not give happiness; there are men whose souls are so fixed on higher things as utterly to disregard the pomps and shows of the world; but none of these *despise* wealth, they *disregard* it; none of these *display* their feelings, they are content to act upon them. The virtue which is loud, noisy, ostentatious, and self-affirmative, looks very like an obtrusive egoism. And this was the virtue of the Cynics. Pretending to reform mankind, it began by blaspheming humanity; pretending to correct the effeminacies of the age, it studiously outraged all the decencies of life. Eluding the real difficulty of the problem, it pretended to solve it by unabashed insolence.

In his old-age Diogenes was taken captive by pirates, who carried him to Crete, and exposed him for sale as a slave. On being asked what he could do, he replied, 'Govern men: sell me, therefore, to one who wants a master.' Xeniades, a wealthy Corinthian, struck with this reply, purchased him, and, on returning to Corinth, gave him his liberty and consigned his children to his education. The children were taught to be Cynics, much to their own satisfaction. It was during this period that his world-renowned interview with Alexander took place. The prince, surprised at not seeing Diogenes joining the crowd of his flatterers, went to see him. He found the Cynic sitting in his tub, basking in the sun. 'I am Alexander the Great,' said he. 'I am Diogenes the Cynic,' was the reply. Alexander then asked him if there was anything he could do for him. 'Yes, stand aside from between me and the sun.' Surprised at such indifference to princely favour—an indifference so strikingly contrasted with everything he could hitherto have witnessed—he exclaimed, 'Were I not Alexander, I would be Diogenes!' One day, being brought before the King, and being asked who he was, Diogenes replied, 'A spy on your cupidity;' language, the boldness of which must have gained him universal admiration, because implying great singularity as well as force of character.

Singularity and Insolence may be regarded as his grand characteristics. Both of these are exemplified in the anecdote of his lighting a lamp in the daytime, and peering about the streets as if earnestly seeking something: being asked what he sought, he replied, 'A Man.' The point of this story is lost in the usual version, which makes him seek 'an honest man.' The words in Laertius are simply, *ἄνθρωπον ζητῶ*—'I seek a man.' Diogenes did not seek honesty; he wanted to find a Man, in whom honesty would be included with many other qualities. It was his constant reproach to his contemporaries, that they had no manhood. He said he had never seen men; at Sparta he had seen children; at Athens, women. One day he called out, 'Approach, all men!' When some approached, he beat them back with his club, saying, 'I called for men; ye are excrements.'

Thus he lived till his ninetieth year, bitter, brutal, ostentatious, and abstemious; disgracing the title of 'The Dog' (for a dog has affection, gratitude, sympathy, and caressing manners), yet growling over his unenvied virtue as a cur growls over his meatless bone, for ever snarling and snapping without occasion; an object of universal attention, and, from many quarters, of unfeigned admiration. One day his friends went to see him. On arriving at the portico under which he was wont to sleep, they found him still lying on the ground wrapped in his cloak. He seemed to sleep. They pushed aside the folds of his cloak: he was dead.*

The Doctrine of the Cynics may be briefly expounded. Antisthenes, as the disciple of Gorgias, was imbued with the sophistical principles respecting Science; principles which his acquaintance with Socrates did not alter. He maintained that Science was impossible. He utterly rejected the Socratic notion of Definitions. He said that a Definition was nothing but a *series of words* (λόγον μακρόν, 'a long discourse'); for which Aristotle calls him an ignoramus.† To the Socratic notion of a Definition, as including the essence of a thing, he opposed the Sophistic notion of a Definition, as expressing a purely subjective relation. You can only express qualities, not essences; you can call a thing silver, but you cannot say in what it consists. Your definition is only verbal: hence the first step in education should be the study of words.‡

What was the consequence of this scepticism? The consequence was, that the Cynics answered arguments by facts.

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* It was thought that he had committed suicide by holding his breath—a physiological impossibility. Other versions of the cause of his death were current in antiquity; one of them seems consistent with his character: it makes him die in consequence of devouring a neat's foot raw.

† 'Απαίδευτος.—*Metaph.* viii. 3.

‡ ARRIAN, *Epictet.*, Diss. i. 17, quoted in RITTER and PRELLER, *Hist. Philos. Græco-Romanæ ex fontium locis contexta* (Hamburg, 1838), p. 174.

When some one was arguing in support of Zeno of Elea's notion respecting the impossibility of movement, Diogenes rose and walked. Definitions might prove that there was no motion; but definitions were only verbal, and could be answered by facts.

This refuge found in common-sense against the assaults of logic, enabled the Cynics to shape a doctrine of morals which had some certain basis. As they answered arguments by facts, so they made actions take the place of precepts. Instead of speculating about virtue, they endeavoured to be virtuous. Socrates had brought philosophy from the clouds; the Cynics endeavoured to bring it into daily practice. Their personal dispositions gave the peculiar colouring to their doctrine, as that of Aristippus had done to the Cyrenaic.

SIXTH EPOCH.

Restoration of Philosophy to its widest Aims—Attempts to follow up the Negative Dialectics of Socrates with an affirmative solution of the chief problems—The necessity for a Criterion of Philosophy becomes for the first time distinctly recognised—The answer to this question gives a logical basis to the Subjective Method.

CHAPTER I.

LIFE OF PLATO.

'WITH Plato Philosophy begins to be a science,' says Hegel*—a statement which may be questioned, as may almost every other statement that can be made about Plato; for, singularly enough, although he is the first of the early thinkers whose writings have floated down to us from the great wreck of Grecian literature, although these writings are both extensive and well authenticated, and although the immense celebrity of his name has never suffered an eclipse, there is scarcely a single point in his teaching which is not open to critical question, and which has not been alternately affirmed and denied by competent critics. If among Platonic students the diversities of opinion are important and incessant, we need not be surprised to find the opinions current in general literature absurdly wide of the truth. A certain mythical reverence surrounds his name. No ancient is more frequently invoked by men who have never looked into one of the dialogues, and by men who would understand very little if they did look. Writers in search of a label for some vapoury rhetoric of their own are fond of finding one in Plato, 'the great Idealist.' Theologians and metaphysicians, more anxious about authorities than reasons, refer with peculiar complacency to Plato as the 'eloquent advocate' of the immateriality and immortality of the soul, never troubling themselves with the consideration that the ideas of Plato on the soul were such as if openly stated they would indignantly reject.

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* HEGEL, *Gesch. d. Phil.* ii. 169.

It requires but a slight acquaintance with his writings to discover that although the cast of his mind was such that only the highest subjects had interest for him (and the highest subjects naturally ally themselves with poetry), yet in his philosophical efforts he was not actuated by a desire to flatter the sensibilities of his audience, but to shatter their false illusions by a severe logic. He wrote poetry in his youth; in mature age he wrote vehemently against it. In his dialogues he appears anything but 'dreamy;' anything but 'an Idealist,' as that phrase is usually understood. He is an inveterate dialectician, a severe and abstract thinker, and a great sophist. His metaphysics are of a nature so abstract and so subtle that they frighten away all but the most determined students. His views on morals and politics, so far from having any romantic tinge, are the *ne plus ultra* of logical severity: hard, uncompromising, and above humanity. He had learned to look upon human passion as a disease, and human pleasure as a frivolity. The only thing worth living for was truth. Dialectics was the noblest exercise of humanity.

Even the current notions respecting his style are erroneous. It is not a 'poetical' metaphorical style. It has unmistakable beauties, but not the beauties popularly attributed to it. Its power is dramatic power, though that is overpraised. The best dialogues contain some excellent scenes of comedy, though no sooner does the argumentation begin than all this dramatic *vis* disappears. Character, banter, irony, and animation are there, but scarcely any imagery, and that seldom beautiful.* His object was to refute or to convince; his illustrations are therefore homely. When fit occasion arrives he can be eloquent and poetical. He clothes some myths in language of splendid beauty; and there are many felicitous passages scattered through the dreary waste of dialectical quibbling and obscurity. These passages have been quoted by various writers; and general readers have supposed that Plato always wrote thus felicitously.

I do not expect that a judgment of Plato so opposed to the traditional admiration of his style will be generally accepted. I can only say that such is the opinion I have formed, and that I came to it through study of the works, having commenced, and for a long while continued, the study under the bias of tradition. With regard to the dramatic power exhibited, there has perhaps been little exaggeration in the praises of critics; but there has been an oversight in regard to the sudden cessation of the dramatic ventriloquence (so to speak), which having animated the *mise en scène* of the characters, disappears as soon as the business of the dialogue begins. In the introductions the characters speak; in the argument it is Plato who speaks just what the needs of his argument require, and the debaters, instead of debating, assent, enquire, and expound, but rarely speak dramatically.

Aristocles, surnamed Plato (the broad-browed),† was the son of Ariston and Perictione, was born at Athens or Ægina, on the 7th Thargelion (about the middle of May), B.C. 427. His childhood and youth consequently synchronize with the Peloponnesian war, the most active and brilliant period of Grecian thought and action. His lineage was illustrious: on the maternal side he was connected with Solon.

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* 'Even upon abstract subjects, whether moral, metaphysical, or mathematical, the language of Plato is clear as the running stream; and in simplicity and sweetness vies with the humble violet which perfumes the vale.'—ENFIELD, *Hist. of Phil.* ii. 221. Whenever you meet with such trash as this, be dubious that the writer of it ever read Plato. ARISTOTLE capitally describes Plato's style as 'a middle species of diction between verse and prose.' It has rhythm rather than imagery.

† Some writers incline to the opinion that 'Plato' was the epithet of broad-browed; others of broad-shouldered; others, again, that it was expressive of the breadth of his style. This last is absurd. The author of the article *Plato* in the *Penny Cyclopædia* pronounces all the above explanations to be 'idle, as the name of Plato was of common occurrence among the Athenians of that time.' But surely Aristocles was not endowed with this surname of Plato without cause? Unless he derived the name from a relation, he may have derived it from one of the above causes.

So great a name could not escape becoming the nucleus of many fables, and we find the later historians gravely repeating various miraculous events connected with him. He was said to be the child of Apollo, his mother a virgin. Ariston, though betrothed to Perictione, delayed his marriage, because Apollo had appeared to him in a dream, and told him that she was with child.

Plato's education was excellent; and in gymnastics he was sufficiently skilled to contend at the Pythian and Isthmian games. Like a true Greek, he attached extreme importance to gymnastics, as doing for the body what dialectics did for the mind; and, like a true Greek, he did not suffer these exercises to absorb his chief time and attention: poetry, music, and rhetoric were assiduously cultivated, and with some success. He wrote an epic poem, besides some tragedies, dithyrambics, lyrics, and epigrams. The epic he is said to have burned in a fit of despair on comparing it with Homer. The tragedies he burned on becoming acquainted with Socrates. Some of the epigrams have been preserved. One of them is very pretty:—

'Αστέρας εἰσαθρεῖς, ἀστὴρ ἐμός· εἴθε γενοίμην
Οὐρανὸς, ὡς πολλοῖς ὄμμασιν εἰς σε βλέπω.

Thou gazest on the stars; ah! would I were the skies,
That I might gaze on thee with all my thousand eyes!

His studies of poetry were mingled with those of philosophy, which he must have cultivated early; for we know that he was only twenty when he first went to Socrates, and we also know that he had been taught by Cratylus before he knew Socrates. Early he must have felt

A presence that disturbed him with the joy
Of elevated thoughts; a sense sublime

Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit that impels
All thinking things, all objects of all thought,
And rolls through all things.

A deep and meditative spirit led him to question Nature. The sombre philosophy of Heraclitus suited well with his melancholy youth. Scepticism, which was the product of that age, had seized on Plato as on all the rest. This scepticism, together with an imperious craving for belief which struggled with the scepticism, found breathing-room in the doctrines of Socrates; and the young scholar learned that without impugning the justice of his doubts, he could escape them by seeking Truth elsewhere.

'But though Plato,' says Mr. Grote, 'may have commenced at the age of twenty his acquaintance with Sokrates, he cannot have been exclusively occupied in philosophical pursuits between the nineteenth and the twenty-fifth year of his age—that is, between 409-403 B.C. He was carried, partly by his own dispositions, to other matters besides philosophy: and even if such dispositions had not existed, the exigencies of the time pressed upon him imperatively as an Athenian citizen. Even under ordinary circumstances, a young Athenian of eighteen years of age, as soon as he was enrolled on the public register of citizens, was required to take the memorable military oath in the chapel of Aglaurus, and to serve on active duty, constant or nearly constant, for two years, in various posts throughout Attica, for the defence of the country. But the six years from 409–403 B.C. were years of an extraordinary character. They included the most strenuous public efforts, the severest suffering, and the gravest political revolution, that had ever occurred at Athens. Every Athenian citizen was of necessity put upon constant (almost daily) military service; either abroad, or in Attica against the Lacedæmonian garrison established in the permanent fortified post of Dekeleia, within sight of the

Athenian Acropolis. So habitually were the citizens obliged o be on guard, that Athens, according to Thucydides, became a military post rather than a city. It is probable that Plato, by his family and its place on the census, belonged to the Athenian Hippeis or Horsemen, who were in constant employment for the defence of the territory. But at any rate, either on horseback, or on foot, or on shipboard, a robust young citizen like Plato, whose military age commenced in 409, must have borne his fair share in this hard but indispensable duty. In the desperate emergency, which preceded the battle of Arginusæ (406 B.C.), the Athenians put to sea in thirty days a fleet of 110 triremes for the relief of Mityene; all the men of military age, freemen, and slaves, embarking. We can hardly imagine that at such a season Plato can have wished to decline service: even if he had wished it, the Strategi would not have permitted him. Assuming that he remained at home, the garrison-duty at Athens must have been doubled on account of the number of departures. After the crushing defeat of the Athenians at Ægospotami, came the terrible apprehension at Athens, then the long blockade and famine of the city (wherein many died of hunger); next the tyranny of the Thirty, who among their other oppressions made war upon all free speech, and silenced even the voice of Sokrates: then the gallant combat of Thrasybulus followed by the intervention of the Lacedæmonians—contingencies full of uncertainty and terror, but ending in the restoration of the democracy. After such restoration, there followed all the anxieties, perils of reaction, new enactments and provisions, required for the revived democracy, during the four years between the expulsion of the Thirty and the death of Sokrates.

'From the dangers, fatigues, and sufferings of such an historical decad, no Athenian citizen could escape, whatever might be his feeling towards the existing democracy, or however averse he might be to public employment by natural temper. But Plato was not thus averse, during the earlier years of his adult life. We know, from his own letters, that he then felt strongly the impulse of political ambition usual with young Athenians of good family; though probably not with any such premature vehemence as his younger brother Glaukon, whose impatience Sokrates is reported to have so judiciously moderated. Whether Plato ever spoke with success in the public assembly, we do not know: he is said to have been shy by nature, and his voice was thin and feeble, ill adapted for the Pnyx. However, when the oligarchy of Thirty was established, after the capture and subjugation of Athens, Plato was not only relieved from the necessity of addressing the assembled people, but also obtained additional facilities for rising into political influence, through Kritias (his near relative) and Charmides, leading men among the new oligarchy. Plato affirms that he had always disapproved the antecedent democracy, and that he entered on the new scheme of government with full hope of seeing justice and wisdom predominant. He was soon undeceived. The government of the Thirty proved a sanguinary and rapacious tyranny, filling him with disappointment and disgust. He was especially revolted by their treatment of Sokrates, whom they not only interdicted from continuing his habitual colloquy with young men, but even tried to implicate in nefarious murders, by ordering him along with others to arrest Leon the Salaminian, one of their intended victims: an order which Sokrates, at the peril of his life, disobeyed.

'Thus mortified and disappointed, Plato withdrew from public functions.'

He remained with Socrates ten years, and was separated from him only by death. He attended his beloved master during the trial; undertook to plead his cause: indeed, began a speech which the violence of the judges would not allow him to continue; and pressed his master to accept a sum of money sufficient to purchase his life.

On the death of Socrates he went to Megara to visit Euclid, as we mentioned before. From thence he proceeded to Cyrene, where he was instructed in mathematics by Theodorus, whom he had known in Athens, if we may credit the

Theætetus, where Theodorus is represented discoursing with Socrates. From Cyrene he went to Egypt, in company, it is said, with Euripides. There is very little authority for this visit, and that Euripides was his companion is not very probable, because Euripides had been dead some years. The influence of Egypt on Plato has certainly been exaggerated. There is no trace, in his works, of Egyptian research. 'All he tells us of Egypt indicates at most a very scanty acquaintance with the subject; and although he praises the industry of the priests, his estimate of their scientific attainments is far from favourable.' *

In these travels the broad-browed meditative man greatly enlarged the Socratic doctrine, and indeed introduced antagonistic elements. But he strictly preserved the Socratic Method. 'Whilst studious youth,' says Valerius Maximus, 'were crowding to Athens from every quarter in search of Plato for their master, that philosopher was wandering along the winding banks of the Nile, or the vast plains of a barbarous country, himself a disciple to the old men of Egypt.'

He returned at last, B. C. 386, and eager scholars flocked around him. With a mind richly stored by foreign travel and constant meditation, he began to emulate his beloved master, and devote himself to teaching.

He had acquired a small house and garden near the Academy, or garden adjoining the sacred precinct of Hecademus, about a mile from Athens on the road to Eleusis. Here there were shady walks and a gymnasium. Here was founded that celebrated school of philosophy which for centuries has been known as that of the Academy.

The longing thoughts of posterity have often hovered round it as the centre of myriad associations. Poets have sung of it. Philosophers have sighed for it.

> See there the olive grove of Academe,
> Plato's retirement, where the Attic bird
> Thrills her thick-warbled notes the summer long.

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* Ritter, ii. 147.

In such a spot where the sound

> Of bees' industrious murmur oft invites
> To studious musing,

one would imagine none but the Graces could enter; and coupling this with the poetical beauties of Plato's *Dialogues*, people have supposed that the lessons in the Academy were magnificent outbursts of eloquence and imagery upon philosophical subjects.

Nothing can be farther from the truth. The lectures were hard exercises of the thinking faculty, and demanded great power of continued abstraction. Whatever graces might have adorned Plato's compositions, his lectures were not literary, but dialectical exercises which were severe trials to the capacities of students; and their purely argumentative nature may have originated the story respecting the inscription over the door of his Academy, '*Let none but Geometricians enter here*;' a story which is very widely circulated, although wholly without good evidence.* The story is in direct contradiction to Plato's views of Geometry, which he excludes from Philosophy, because it assumes its axioms without proof, and because it occupies a middle position between Opinion and Philosophy, more accurate than the one, but less certain than the other.†

'Though Plato demanded no money as fee for admission of pupils, yet neither did he scruple to receive presents from rich men such as Dionysius, Dion, and others. In the jests of Ephippus, Antiphanes, and other poets of the middle comedy, the pupils of Plato in the Academy are described as finely and delicately clad, nice in their persons even to affectation, with elegant caps and canes; which is the more to be noticed because the preceding comic poets derided Sokrates and his companions for qualities the very opposite—as prosing beggars, in mean attire and dirt. Such students must have belonged to opulent families; and we may be sure that they requited their master by some valuable present, though no fee may have been formally demanded from them. Some conditions (though we do not know what) were doubtless required for admission. Moreover the example of Eudoxus shows that in some cases even ardent and promising pupils were practically repelled. At any rate, the teaching of Plato formed a marked contrast with that extreme and indiscriminate publicity which characterised the conversation of Sokrates, who passed his days in the market-place or in the public porticoes or palæstræ; while Plato both dwelt and discoursed in a quiet residence and garden a little way out of Athens.'

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* Mr. THOMPSON says the only authorities for the inscription are PHILOPONUS, in his Commentary on Aristotle, *De Animâ*, and a verse in the *Chiliads* of TZETZES. See Notes to *Butler's Lectures*, ii. 79.

† I have been unable to recover a passage in the *Republic* where PLATO expresses himself as in the text, but I found this, which approximates to it, although not the passage I had in my mind. See *Repub.* vi. towards the end, beginning, Μανθάνω, ἔφη, κ.τ.λ. . . . and ending, διάνοιαν δὲ καλεῖν μοι δοκεῖς τὴν τῶν γεωμετρικῶν τε καὶ τὴν τῶν τοιούτων ἕξιν, ἀλλ' οὐ νοῦν, ὡς μεταξύ τι δόξης τε καὶ νοῦ τὴν διάνοιαν οὖσαν.

In his fortieth year Plato made his first visit to Sicily. It was then he became acquainted with Dionysius I., the Tyrant of Syracuse, Dion, his brother-in-law, and Dionysius II. With Dionysius I. he soon came to a rupture, owing to his political opinions; and he so offended the Tyrant, that his life was threatened. Dion however interceded for him; and the Tyrant spared his life, but commissioned Pollis, the Spartan Ambassador, in whose ship Plato was to return, to sell him as a slave. He was sold accordingly. Anniceris of Cyrene bought him, and immediately set him free. On his return to Athens, Dionysius wrote, hoping that he would not speak ill of him. Plato contemptuously replied, that he had not 'leisure to think of Dionysius.'

Plato's second visit to Syracuse was after the death of Dionysius I., and with the hope of obtaining from Dionysius II. the establishment of a colony according to laws framed by himself. The colony was promised; but never granted. Plato incurred the Tyrant's suspicions of having been concerned in Dion's conspiracy; but he was allowed to return home in peace.

He paid a third visit; and this time solely to endeavour to reconcile Dionysius with his uncle Dion. Finding his efforts fruitless, and perhaps dangerous, he returned.

In the calm retirement of the Academy, Plato passed the remainder of his days. Lecturing and writing were his chief occupations. The composition of those dialogues which have been the admiration of posterity, was the cheering solace of his life, especially of his declining years. He died at the advanced age of eighty-three.

'The latter half of Plato's life in his native city must,' says Mr. Grote, 'have been one of dignity and consideration, though not of any political activity. He is said to have addressed the Dikastery as an advocate for the accused general Chabrias: and we are told that he discharged the expensive and showy functions of Choregus, with funds supplied by Dion. Out of Athens also his reputation was very great. When he went to the Olympic festival of B. C. 360, he was an object of conspicuous attention and respect: he was visited by hearers, young men of rank and ambition, from the most distant Hellenic cities; and his advice was respectfully invoked both by Perdikkas in Macedonia and by Dionysius II. at Syracuse. During his last visit to Syracuse, it is said that some of the students in the Academy, among whom Aristotle is mentioned, became dissatisfied with his absence, and tried to set up a new school; but were prevented by Iphikrates and Chabrias, the powerful friends of Plato at Athens. This story is connected with alleged ingratitude on the part of Aristotle towards Plato, and with alleged repugnance on the part of Plato towards Aristotle. The fact itself—that during Plato's absence in Sicily his students sought to provide for themselves instruction and discussion elsewhere—is neither surprising nor blameable.'

Plato was intensely melancholy. That great broad brow, which gave him his surname, was wrinkled and sombre. Those brawny shoulders were bent with thought, as only those of thinkers are bent. A smile was the utmost that ever played over his lips; he never laughed. 'As sad as

Plato' became a phrase with the comic dramatists. He had many admirers; scarcely any friends.

His intellect had so fixed itself upon the absorbing questions of philosophy, that it had scarcely any sympathy left for other matters. Hence his constant reprobation of Poets. Many suppose that the banishment of Poets from his *Republic* was but an insincere extension of his logical principles, and that he really loved poetry too well to condemn it. Plato's opposition to poets was however both deep and constant. He had a feeling not unallied to contempt for them, because he saw in them some resemblance to the Sophists, in their indifference to truth, and preference for the arts of expression. The only poetry Plato ever praises is *moral* poetry, which is versified philosophy. Poets, at the best, he held to be inspired madmen, unconscious of what fell from their lips. Let the reader open the *Ion* (it has been translated by Shelley); he will then perceive the cause of poets being banished from the *Republic.* Plato had a repugnance to poetry, partly because it was the dangerous rival of philosophy, partly because he had a contempt for pleasure.* It is true that he frequently quotes Homer, and, towards the close of the *Republic*, some misgivings of having harshly treated the favourite of his youth, escape him; but he quickly withdraws them, and owns that Truth alone should be man's object.

Let no one object to our assertion of his constant melancholy, on the ground of the comic talent displayed in his *Dialogues.* The comic writers are not the gayest men; even Molière, whose humour is so genial, overflowing, and apparently spontaneous, was one of the austerest. Comedy often springs from the deepest melancholy, as if in sudden rebound. Moreover, in Plato's comedy there is almost always some under-current of bitterness: it is irony, not joyousness.

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* Comp. *Philebus*, p. 131.

CHAPTER II.

PLATO'S WRITINGS: THEIR AUTHENTICITY, CHARACTER, AND OBJECT.

BEFORE attempting an account of Plato's doctrines, it may be useful to say something respecting the character and authenticity of his writings. Modern criticism, which spares nothing, has not left them untouched. Dialogues, the authenticity of which had never been questioned in antiquity, have been rejected by modern critics upon arbitrary grounds.

I cannot enter here into the details, I want the space; and, were there space, I might be excused from combating the individual positions, when I refuse to accept as valid the fundamental assumptions on which they repose. Internal evidence is generally deceptive; but the sort of internal evidence supposed to be afforded by comparative inferiority in artistic execution, is never free from great suspicion. Some of Plato's dialogues not being found equal to the exalted idea which his great works have led men to entertain, are forthwith declared to be spurious. But what writer is at all times equal to the highest of his own flights? What author has produced nothing but *chefs-d'œuvre*? Are there not times when the most brilliant men are dull, when the richest style is meagre, when the compactest style is loose? The same subjects will not always call forth the same excellence; how unlikely then that various subjects should be treated with uniform power! The *Theages* could hardly equal the *Theætetus*; the *Euthydemus* must be inferior to the *Gorgias*. No one thinks of disputing Shakspeare's claim to the *Merry Wives of Windsor*, because it is immeasurably inferior to *Twelfth Night*, which, in its turn, is inferior to *Othello*.

Besides the dialogues rejected on account of inferior art, there are others rejected on account of immature or contradictory opinions. But this ground is as untenable as the former. No one has yet been able to settle definitively *what* was Plato's philosophy; yet opinions are said to be unworthy of that unsettled philosophy! A preconceived notion of Plato's having been a pure Socratist, has led to the rejection of whatever seemed contradictory to Socratic views. But there is abundant evidence to show that Plato was not a mere exponent of Socratic opinions. Moreover, in a long life a man's opinions undergo many modifications; and Plato was no exception to the rule. He contradicts himself constantly. He does so in works the authenticity of which no one has questioned; and we are not to be surprised if we find him doing so in others.

Without pretending to the special scholarship requisite for the thorough investigation of so intricate a question, I demurred, in the first edition of this work, against the initial assumptions on which the investigation had been conducted. Study of Plato had impressed on me the utter impossibility of fixing upon any consistent doctrine which could afford a test of authenticity; and some experience of the fallacious nature of internal evidence, applied even to the works of contemporaries, made me wholly sceptical of any arguments based on that ground. Inasmuch as we know extremely little of Plato except what we learn from the *Dialogues*, it is arguing in a circle to determine, from the knowledge gained from them, which dialogues are genuine. Schiller's Robbers, upon internal evidence, would have to be discarded as unauthentic, or else Wallenstein would be pronounced a forgery. Should all external evidence disappear, Auguste Comte will be robbed either of his *Système de Philosophie Positive* or his *Système de Politique Positive*, by critics who find an irreconcilable difference between the method and spirit of those works.

To this general demurrer may now be added the special refutation which Mr. Grote has so elaborately, and, in my opinion, so successfully, advanced in his work on Plato. He meets the critics on every ground; and shows that there is more assurance of authenticity in the case of the *Dialogues* than in that of any other contemporary writings, and more assurance for Plato than for Isocrates, Euripides, Lysias, Demosthenes, or Aristophanes. Having traced the history of their safe custody and the grounds for believing that the copies which were in the Alexandrine library were authentic, Mr. Grote says that Thrasyllus 'accepted the collection of Platonic compositions sanctioned by Aristophanes and recognised as such in the Alexandrine library. As far as our positive knowledge goes, it fully bears out what is here stated: all the compositions recognised by Aristophanes (unfortunately Diogenes does not give a complete enumeration of those which he recognised) are to be found in the catalogue of Thrasyllus. And the evidentiary value of this fact is so much the greater, because the most questionable compositions (I mean, those which modern critics reject or even despise) are expressly included in the recognition of Aristophanes, and passed from him to Thrasyllus—Leges, Epinomis, Minos, Epistolæ, Sophistes, Politikus. Exactly on those points on which the authority of Thrasyllus requires to be fortified against modern objectors, it receives all the support which coincidence with Aristophanes can impart. When we know that Thrasyllus adhered to Aristophanes on so many disputable points of the catalogue, we may infer pretty certainly that he adhered to him in the remainder. In regard to the question, Which were Plato's genuine works? it was perfectly natural that Thrasyllus should accept the recognition of the greatest library then existing: a library, the written records of which could be traced back to Demetrius Phalereus. He followed this external authority: he did not take each dialogue to pieces, to try whether it conformed to a certain internal standard, a "platonisches Gefühl"—of his own.

'That the question between genuine and spurious Platonic dialogues was tried in the days of Thrasyllus, by external authority and not by internal feeling—we may see farther by the way in which Diogenes Laertius speaks of the spurious dialogues. "The following dialogues (he says) are declared to be spurious *by common consent*: 1. Eryxias or Erasistratus. 2. Akephali or Sisyphus. 3. Demodokus. 4. Axiochus. 5. Halkyon. 6. Midon or Hippotrophus. 7. Phæakes. 8. Chelidon. 9. Hebdomê. 10. Epimenides." There was, then, unanimity, so far as the knowledge of Diogenes Laertius reached, as to genuine and spurious. All the critics whom he valued, Thrasyllus among them, pronounced the above ten dialogues to be spurious: all of them agreed also in accepting the dialogues in the list of Thrasyllus as genuine. Of course the ten spurious dialogues must have been talked of by some persons, or must have got footing in some editions or libraries, as real works of Plato: otherwise there could have been no trial had or sentence passed upon them. But what Diogenes affirms is, that Thrasyllus and all the critics whose opinion he esteemed, concurred in rejecting them. We may surely presume that this unanimity among the critics, both as to all that they accepted and all that they rejected, arose from common acquiescence in the authority of the Alexandrine library. The ten rejected dialogues were not in the Alexandrine library—or at least not among the rolls therein recognised as Platonic.

'If Thrasyllus and the others did not proceed upon this evidence in rejecting the ten dialogues, and did not find in them any marks of time such as to exclude the supposition of Platonic authorship—they decided upon what is called internal evidence: a critical sentiment, which satisfied them that these dialogues did not possess the Platonic character, style, manner, doctrines, merits, &c. Now I think it highly improbable that Thrasyllus could have proceeded upon any such sentiment. For when we survey the catalogue of works which he recognised as genuine, we see that it includes the widest diversity of style, manner, doctrine, purpose, and merits: that the disparate epithets, which he justly applies to discriminate the various dialogues, cannot be generalized so as to leave any intelligible "Platonic character" common to all. Now since Thrasyllus reckoned among the genuine works of Plato, compositions so unlike, and so unequal in merit, as the *Republic*, *Protagoras*, *Gorgias*, *Lysis*, *Parmenides*, *Symposion*, *Philebus*, *Menexenus*, *Leges*, *Epinomis*, *Hipparchus*, *Minos*, *Theages*, *Epistolæ*, &c., not to mention a composition obviously unfinished, such as the *Kritias*—he could have little scruple in believing that Plato also composed the *Eryxias*, *Sisyphus*, *Demodokus*, and *Halkyon*. These last-mentioned dialogues still exist, and can be appreciated. Allowing, for the sake of argument, that we are entitled to assume our own sense of worth as a test of what is really Plato's composition, it is impossible to deny, that if these dialogues are not worthy of the author of *Republic* and *Protagoras*, they are at least worthy of the author of the *Leges*, *Epinomis*, *Hipparchus*, *Minos*, &c. Accordingly, if the internal sentiment of Thrasyllus did not lead him to reject these last four, neither would it lead him to reject the *Eryxias*, *Sisyphus*, and *Halkyon*. I conclude therefore that if he, and all the other critics whom Diogenes esteemed, agreed in rejecting the ten Dialogues as spurious—their verdict depended not upon any internal sentiment, but upon the authority of the Alexandrine library.

'On this question, then, of the Canon of Plato's works (as compared with the works of other contemporary authors) recognised by Thrasyllus—I consider that its claim to trustworthiness is very high, as including all the genuine works, and none but the genuine works, of Plato: the following facts being either proved, or fairly presumable.

'1. The Canon rests on the authority of the Alexandrine library and its erudite librarians; whose written records went back to the days of Ptolemy Soter, and Demetrius Phalereus, within a generation after the death of Plato.

'2. The manuscripts of Plato at his death were preserved in the school which he founded; where they continued for more than thirty years under the care of Speusippus and Xenokrates, who possessed personal knowledge of all that Plato had really written. After Xenokrates, they came under the care of Polemon and the succeeding Scholarchs, from whom Demetrius Phalereus probably obtained permission to take copies of them for the nascent museum or library at Alexandria—or through whom at least (if he purchased from booksellers) he could easily ascertain which were Plato's works, and which, if any, were spurious.

'3. They were received into that library without any known canonical order, prescribed system, or interdependence essential to their being properly understood. Kallimachus or Aristophanes devised an order of arrangement for themselves, such as they thought suitable.'

But whether all the Dialogues were the production of Plato or not, they equally serve the purpose of this History, since no one denies them to be *Platonic.* We may therefore leave this question, and proceed to others.

Do the Dialogues contain the real opinions of Plato? This question has three motives. 1st. Plato himself never speaks *in propriâ personâ*, unless indeed the Athenian in the *Laws* be accepted as representing him; a supposition in which I am inclined to concur. 2ndly. From certain passages in the *Phædrus* and the *Epistles*, it would appear that Plato had a contempt for written opinions, as inefficient for instruction. 3rdly. On the testimony of a phrase in Aristotle, it is supposed that Plato, like Pythagoras, had exoteric and esoteric opinions; the former being, of course, those set forth in his Dialogues.

I will endeavour to answer these doubts. The first is of very little importance; the second of greater; the last of very great importance. That Plato adopts the dramatic form, and preserves it, is true; but this form, which quite baffles us with Shakspeare, baffles us with no one else. It is easy to divine the opinions of Aristophanes, Molière, or Schiller. It should be easy to divine the opinions of Plato, because, unlike the dramatists, he selects his dialogue solely with a view to the illustration of his opinions. And in a certain sense this is true. We are quite justified in assuming that the views which are put forth dogmatically in the expository Dialogues were the views Plato held at the time of composing those Dialogues, however these may differ amongst each other. And even in the dialogues of Search, mere dialectical exercises although they may be, there is a recurrence of certain views, more or less modified, and a general unity of method, which assure us that we have the real thoughts of the writer presented. We can thus speak without misgiving of a Platonic Method, though not of a Platonic System; of Platonic opinions, though not of a Platonic Philosophy.

Respecting the insufficiency of books to convey instruction, we may first quote what 'Socrates' says on the subject in the *Phædrus*:—

'Writing is something like painting: the creatures of the latter art *look* very like living beings: but, if you ask them a question, they preserve a solemn silence. Written discourses do the same: you would fancy, by what they say, that they had some sense in them; but, if you wish to learn, and therefore interrogate them, they have only their first answer to return to all questions. And when the discourse is once written, it passes from hand to hand, among all sorts of persons, those who can understand it, and those who cannot. It is not able to tell its story to those only to whom it is suitable; and, when it is unjustly criticized, it always needs its author to assist it, for it cannot defend itself. There is another sort of discourse, which is far better and more potent than this.—What is it? That which is written scientifically in the learner's mind. This is capable of defending itself, and it can speak itself, or be silent, as it sees fit.—You mean the real and living discourse of the person who understands the subject; of which discourse the written one may be called the picture? Precisely.—Now, think you that a sensible husbandman would take seed which he valued, and wishing to produce a harvest, would seriously, after the summer had begun, scatter it in the gardens of

Adonis,* for the pleasure of seeing it spring up and look green in a week? Or do you not rather think that he might indeed do this for sport and amusement; but, when his purpose was serious, would employ the art of agriculture, and, sowing the seed at the proper time, be content to gather in his harvest in the eighth month? The last, undoubtedly.—And do you think that he who possesses the knowledge of what is just, and noble, and good, will deal less prudently with *his* seeds than the husbandman with his? Certainly not.—He will not, then, set about sowing them with a pen and a black liquid; or (to drop the metaphor) scattering these truths by means of discourses, which cannot defend themselves against attack, and which are incapable of adequately expounding the truth. No doubt he will, *for the sake of sport*, occasionally scatter some of the seeds in this manner, and will thus *treasure up memoranda for himself*, in case he should fall into the forgetfulness of old-age, and for all others who follow in the same track; and he will be pleased when he sees the blade growing up green.'†

Now, this remarkable passage is clearly biographical. It is the justification of Socrates's philosophical career. But it must not be too rigorously applied to Plato, whose voluminous writings contradict it; nor must we suppose that those writings were designed only for amusement, or as memoranda for his pupils. The main idea of this passage is one which few persons would feel disposed to question. We are all aware that books labour under very serious deficiencies; they cannot replace oral instruction. The frequent misapprehensions of an author's meaning would in a great measure be obviated if we had him by our side to interrogate him. And oral instruction has the further advantage of not allowing the reader's mind to be so *passive* as it is with a book: the teacher by his questions excites the activity of the pupil. All this may reasonably be conceded as Plato's opinion, without at all affecting the serious purpose of his writings. Plato thought that conversation was more instructive than reading; but he knew that reading was also instructive, and he wrote: to obviate as much as possible the necessary inconveniences of written discourse, he threw all his works into the form of dialogue. Hence the endless repetitions, divisions, and illustrations of positions almost self-evident. The reader is fatigued by them; but, like the humorist's tediousness, they have 'a design' in them: that design is, by imitating conversation, to leave no position unexplained. As a book cannot be interrogated, Plato makes the book anticipate interrogations. The very pains he takes to be tedious, the very minuteness of his details, is sufficient to rescue his works from the imputation of being mere amusements. He was too great an artist to have sacrificed his art to anything but his convictions. That he did sacrifice the general effect to his scrupulous dialectics, no one can doubt; and we believe that he did so for the sake of deeply impressing on the reader's mind the real force of his Method. Had the critics recognised Plato's real drift, we believe they would have spared much of their censure, and hesitated before pronouncing against the genuineness of certain dialogues.

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* 'The gardens of Adonis,' a periphrasis for mignonette-boxes.

† *Phædrus*, p. 98.

Connected with Plato's expressions respecting the imperfection of written works, there is a passage in Aristotle, referring to the *ἄγραφα δόγματα*, or 'unwritten opinions,' which is supposed to indicate an esoteric doctrine. If Aristotle's words do bear that meaning, then is the opinion consistent and valid, which regards the exoteric works—the Dialogues—as mere divertisements. Let us examine it.

Aristotle says that Plato, in the *Timæus*, maintained space and matter to be the same, but that, in what are called the unwritten opinions (*ἐν τοῖς λεγομένοις ἀγράφοις δόγμασι*), he considered space and place (*τὸν τόπον καὶ τὴν χώραν*) to be the same.* From such a passage it is surely somewhat gratuitous to conclude that Plato had an esoteric doctrine. The *ἄγραφα δόγματα* probably meant his lectures, or, as Ritter suggests, notes taken from the lectures by his scholars. At any rate there is no ground for supposing them to have been esoterical opinions; the more so as Aristotle, his most illustrious pupil, never speaks of any such distinct doctrine, but draws his statements of Plato's views from published works.

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* *Phys.* iv. c. 2, p. 53. Ritter, who refers to but does not cite the passage, gives us to understand that, in these unwritten opinions, 'much was explained differently, or, at least, more definitely than in the Dialogues.' But no such conclusion

The ancients, we are told by Sextus Empiricus,[*] were divided amongst themselves as to whether Plato was a sceptic or a dogmatist. Nor was the dispute irrational; for, as some of the Dialogues are expository and dogmatical, and others are mere exercises of the dialectical method—mere contests in which nothing is definitely settled—any one having studied only one class of these Dialogues would think Plato either a sceptic or a dogmatist, according to the nature of those which he had read. Thus Cicero, an ardent admirer, says, 'Plato affirms nothing; but, after producing many arguments, and examining a question on every side, leaves it undetermined.' This is true of such dialogues as the *Theætetus*, or the *Hippias Major*; but untrue of the *Phædo*, *Timæus*, *Laws*, &c.

When it is said that Plato held such or such an opinion, it should be distinctly stated in what dialogue it appears, and whether it is there affirmative or simply dialectical; because, in speaking of so long a career, containing so many changes of opinion, it is necessary to be precise. There is scarcely a single opinion held by him *throughout* his works. Even the Socratic view of Virtue being identical with Knowledge, consequently of Vice being Ignorance, and therefore involuntary—even this idea he learned in his old-age to repudiate, as we see in the *Laws* (v. p. 385), where he calls *incontinence*, no less than ignorance (ἢ δι' ἀμαθίαν ἢ δι' ἀκράτειαν), the cause

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can be drawn from Aristotle. There is no greater difference alluded to in the passage than may frequently be found between one dialogue and another. If the written (published) opinions differ, surely those unwritten may be allowed also to differ from the written. If the *Republic* differs from the *Timæus*, surely the 'unwritten opinion' may differ from the *Timæus*.

[*] *Pyrrhon. Hypot.* i. p. 44.

of vice. In the same sense (iv. p. 138), after speaking of anger and pleasure as causes of error, he says, 'There is a third cause of our faults, and that is ignorance' (τρίτον ἄγνοιαν τῶν ἁμαρτημάτων αἰτίαν). So that here he places Ignorance only as a third cause; and by so doing destroys the whole Socratic argument respecting the identity of Virtue and Knowledge. Nay, more. He is not consistent even in his conception of the true mode of philosophizing; he is not unswerving even in his allegiance to Socrates. If there is one characteristic of his great master to which the pupil might be supposed preeminently attached, it is that of the negative procedure of cross-examination; yet this, which in so many dialogues he has exhibited with singular vivacity and force, is quietly set aside in the affirmative dialogues, and in the *Republic* and the *Laws* is pointedly condemned. Socrates declared that it was his mission to expose the pretence of knowledge; not to furnish opinions, but the intellectual activity which might seek and find truth. He knew nothing; professed himself incapable of teaching anything beyond the humiliating lesson of ignorance pretending to be knowledge. He urged upon all—upon the young especially—the necessity of following his example. But Plato, in the *Republic*, severely condemns this presumptuous cross-questioning, especially on the part of the young. He regards it as the vice of the time. He deprecates the disturbance of those opinions which they have learned from the lawgiver respecting what is just and honourable—opinions, namely, which in other dialogues Socrates is made to exhibit as untaught, perhaps unteachable, acquired no man knows how, and constituting that very illusion of knowledge which the Elenchus was to dispel, and which must be dispelled before improvement could be possible.

This contradiction Mr. Grote calls upon us to notice as decidedly anti-Socratic, and even anti-Platonic in so far as Plato represents Socrates. The prohibition of dialectic debate belongs indeed to the case of Meletus and Anytus on their indictment against Socrates before the dikastery. It is identical with their charge against him of corrupting youth and inducing them to fancy themselves superior to the authority of established opinions.*

In the *Protagoras* Socrates maintains that the Good is identical with the Pleasurable, and Evil identical with the Painful. In the *Gorgias* he maintains the reverse. In fact, as Mr. Grote truly says, it is 'scarcely possible to resolve all the diverse manifestations of the Platonic mind into one higher unity; or to predicate, about Plato as an intellectual person, anything which shall be applicable at once to the *Protagoras, Gorgias, Parmenides, Phædrus, Symposion, Philebus, Phædon, Republic, Timæus,* and *Leges*. Plato was sceptic, dogmatist, religious mystic and inquisitor, mathematician, philosopher, poet (erotic as well as satirical), rhetor, artist—all in one: or at least, all in succession, throughout the fifty years of his philosophical life. At one time his exuberant dialectical impulse claims satisfaction, manifesting itself in a string of ingenious doubts and unsolved contradictions: at another time, he is full of theological antipathy against those who libel Helios and Selene, or who deny the universal providence of the Gods: here, we have unqualified confessions of ignorance, and protestations against the false persuasion of knowledge, as alike wide-spread and deplorable—there, we find a description of the process of building up the Kosmos from the beginning, as if the author had been privy to the inmost purposes of the Demiurgus. In one dialogue the erotic fever is in the ascendant, distributed between beautiful youths and philosophical concepts, and confounded with a religious inspiration and *furor* which supersedes and transcends human sobriety (*Phædrus*): in another, all vehement impulses of the soul are stigmatized and repudiated, no honourable scope being left for anything but the calm and passionless Nous (*Philebus, Phædon*). Satire is exchanged for dithyramb and mythe,—and one ethical point of view for another (*Protagoras*, *Gorgias*). The all-sufficient dramatizing power of the master gives full effect to each of these multifarious tendencies. On the whole—to use a comparison of Plato himself—the Platonic sum total somewhat resembles those fanciful combinations of animals imagined in the Hellenic mythology—an aggregate of distinct and disparate individualities, which look like one because they are packed in the same external wrapper.'

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* The *Meno* is a further confirmation. In it virtue is shown to be unsusceptible of being taught; *ergo*, it is not Knowledge. This would make the *Meno* one of the latest works. Neither of these contradictions has, to my knowledge, been noticed before.

There are certain theoretical views which, because they frequently recur in more or less modified forms, may be loosely styled Platonic, such for instance as the theory of Ideas and the theory of Reminiscence, but they are sometimes disregarded, at others contradicted; and the final result of any searching examination of the Dialogues must be the conviction that they contain no doctrine, no system consistent in its relations. Indeed, as Mr. Grote well says, 'That in 406 B.C., and at the age of 23, in an age when schemes of philosophy elaborated in detail were unknown—Plato should conceive a vast scheme of philosophy, to be worked out underground without ever being proclaimed, through numerous Sokratic dialogues one after the other, each ushering in that which follows and each resting upon that which precedes: that he should have persisted throughout a long life in working out this scheme, adapting the sequence of his dialogues to the successive stages which he had attained, so that none of them could be properly understood unless when studied immediately after its predecessors and immediately before its successors—and yet that he should have taken no pains to impress this one peremptory arrangement on the minds of readers, and that Schleiermacher should be the first to detect it—all this appears to me as improbable as any of the mystic interpretations of Jamblichus or Proklus. Like other improbabilities, it may be proved by evidence, if evidence can be produced: but here nothing of the kind is producible. We are called upon to grant the general hypothesis without proof, and to follow Schleiermacher in applying it to the separate dialogues.'

Hegel, although admitting that in Plato there is a philosophical spirit which does not express itself in a distinct doctrine because the age was not yet ripe for a doctrine, somewhat inconsistently declares that it is want of due comprehension on the reader's part as to what constitutes philosophy which makes the difficulty of understanding Plato's philosophy.* His own account of Plato seems to me entirely arbitrary. Mr. Maurice, on the other hand, considers it a merit in the Dialogues that 'there you find no digests of doctrine, no collections of ready manufactured notions to be adopted and carried away.' 'Not to frame a comprehensive system which shall include nature and society, man and God, as its different elements, or in its different compartments, and which therefore necessarily leads the system-builder to consider himself above them all, but to demonstrate the utter impossibility of such a system, to cut up the notion and dream of it by the roots, this is the work and glory of Plato.'†

After having read every one of Plato's Dialogues (an excessively wearisome labour) and done my best to arrive at a distinct understanding of their purpose, I come to the conclusion that he never systematized his thoughts, but allowed free play to scepticism, taking opposite sides in every debate because he had no steady conviction to guide him; unsaying to-day what he had said yesterday, satisfied to show the weakness of an opponent. Mr. Grote, who accepts the *Epistles* as genuine, relies on their declaration that the highest principles of philosophy could not be set forth in writing so as to be intelligible to ordinary minds; only a few could apprehend them, and they only through an illumination kindled by multiplied debate and much mental effort. 'I have never written anything on these subjects; there neither is, nor shall there ever be, any treatise of Plato. The opinions called by the name of Plato are those of Socrates in his days of youthful vigour and glory.' This last statement requires qualification, since the known opinions of Socrates are sometimes flatly contradicted; but if we alter the phrase into 'The opinions called by the name of Plato are opinions dramatically put forth as dialectical displays,' it may be accepted. Certain it is that nowhere in his own name does he express opinions, nor did he ever compose a treatise.

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* HEGEL, *Gesch. d. Phil.* ii. 170, 186.

† MAURICE, *Moral and Metaph. Philos.* part i.; *Ancient Phil.* 129, 137.

Was this reserve owing to philosophical incompetence? Did he withhold a system because, in truth, he had no system to produce? It seems to me that he taught nothing decisively because, like many other active sceptical intellects, he was afraid of committing himself. And like many others he concealed his own vacillations by assuming a native incompetence in the public. Plato was not wanting in dogmatic impulse, but he was unable patiently to think out a system; and the vacillating lights which shifted constantly before him, the very scepticism which gave such dramatic flexibility to his genius, made him aware that any affirmation he could make was liable to be perplexed by cross lights, or would admit of unanswerable objections. He is perpetually refuting himself. If there is one theory which might be attributed to him and with all the greater show of reason because it is attributed to him by his pupil Aristotle, it is the theory of Ideas; yet this theory is not only variously modified in various dialogues, but in the *Parmenides* is triumphantly refuted.

I do not say ~~it was int~~ellectual weakness, perhaps rather it was intellectual strength, which determined his reserve. At any rate, it was philosophical incompetence. Partly owing to his acuteness, and partly to his scepticism, he could nowhere find firm ground and solid material. The guesses of to-day were likely to be rejected for the guesses of to-morrow; and in the absence of any positive criterion, philosophy could only proceed upon guesses. A man of narrower or more impassioned intellect would have resolutely seized on some of the cardinal notions with which Plato dallied, and, like Plotinus, would have built a system out of them. An intellect of greater organizing power—like Aristotle—would have settled a few premisses once for all, and from them deduced a scheme of the universe. But Plato was essentially a dialectician. His intellect delighted in the play of ideas. At a time when schemes of the universe were so easy, and when proof was rarely demanded, he could content himself with no scheme because he felt dimly that proof was needed, and saw that he had none to furnish. Add to this the native dramatic disposition of his mind, and a certain emotional susceptibility which made him peculiarly liable to what may be called the mythic mirage, and we may understand how he was indisposed to scientific clearness. Tradition, Theology, and Poetry were always struggling in his mind with Dialectics. Hence it is that in spite of the cross-examining Elenchus learned from Socrates, in spite of a negative tendency which made him active in doubt even to the idlest quibbling, there probably never was a thinker of eminence who accepted with more childish credulity notions which a question would refute, guesses which a mature man might blush to have entertained. Sharpsightedness and silliness are sometimes yoked together in perfect amity. Noble thoughts and nonsense may be quoted from his works in sufficient abundance to justify veneration or contempt.

Whatever may have been the cause which prevented Plato from thinking out a system, it is incredible to me that there was any other cause which prevented its promulgation. If he was silent, it was because he was without a doctrine. If he kept an enigma before the world, it was because to himself it remained an enigma. Had he clearly seen the truth, he would never have doubted the capacity of other minds to see it also; nor would he have doubted his own capacity of making them see it. There is a fervour in conviction which impels utterance. But there is a timidity in minds unassured which prompts all the artifices of reticence: they fear to show their precious jewel lest the spectator irreverently declare it to be paste; they fear to express their thoughts, lest the expression should not do them justice. Every day one meets people who hint mysteriously that they have discovered the great secret which other minds are seeking; they assure you, in covert or in overt phrase, that all the world is hopelessly wrong—this man fancying he is approaching the truth, and not aware of the impassable chasm which yawns before him; that man starting on the right path, but having overlooked the truth and passed it—so that you may understand how they, and they alone, can disclose the secret if they will; only they never will.

How far Plato may have been withheld by intellectual or by moral misgivings we cannot say; but we know that he was withheld from anything like a formal exposition of his views; and the Platonic philosophy, meaning by it more than certain ideas which may be found in certain dialogues, is nowhere to be seen out of the works of interpreters. But this denial of a philosophy, and the admission that his writings contain a large amount of triviality and absurdity, should not interfere with our recognition of his greatness. To appreciate Plato, as to appreciate all the great minds that have achieved supreme distinction among mankind, it is necessary to keep before us the luminous thought expressed by Wordsworth, and frequently reproduced by De Quincey, which classes all Literature under two divisions—the Literature of Power, and the Literature of Knowledge. The amount of effective thought available for our purposes, which is now to be found in Plato, is assuredly very small; the amount of knowledge scarcely rises above zero. But the dynamic influence of this thinker, who for twenty centuries has been a great intellectual force, stimulating the minds he could not instruct, strengthening those he could not guide—*ad impellendum satis, ad edocendum parum*—still remains, and will ever remain, a source of power.

If there were any one doctrine running through the Dialogues, a classification of the Dialogues would be indispensable. Since it is not so, however, the question of classification becomes therefore of little importance; and we may resign ourselves more patiently to the fact that no two persons seem to agree as to the precise arrangement. Any attempt at chronological arrangement must inevitably fail. Certain dialogues can be satisfactorily shown to have been written

Politicus, *Symposium*, *Phædo*, and *Philebus*; with an appendix containing the *Theages*, *Amatores*, *Alcibiades I.*, *Menexenus*, *Hippias Major*, and *Clitophon*. 3rd. *Constructive dialogues*, in which the practical is completely united with the speculative; these are the *Republic*, *Timæus*, *Critias* with an appendix containing the *Laws* and the *Epistles*.* There is considerable ingenuity in this; and it has been adopted by Bekker in his edition. It has however been much criticized, as every such attempt must necessarily be. Van Heusde, in his charming work,† has suggested another. He proposes three classes: 1, those wherein the subject-matter relates to the Beautiful; 2, those wherein it relates to the True; 3, those wherein it relates to the Practical. Of the first are those concerning Love, Beauty, and the Soul. Of the second, those concerning Dialectics, Ideas, Method; in which Truth and the means of attaining it are sought. Of the third, those concerning justice; i. e. morals and politics. These three classes represent the three phases of the philosophical mind: the desire for Truth, the appreciation of Truth, and the realization of it, in an application to human life.

There is one great objection to this classification, namely, the impossibility of properly arranging the Dialogues under the separate heads. The *Phædrus*, which Van Heusde believes devoted to Love and Beauty, Schleiermacher has clearly shown to be devoted to Dialectics. So of the rest: Plato mixes up in one dialogue very opposite subjects. Van Heusde is also under the erroneous conviction of Plato's having been only a Socratist till he went to Megara, where he became imbued with the Eleatic doctrines; and that it was in his maturer age that he became acquainted with the Pythagorean philosophy.

It seems to me that the Dialogues may reasonably be divided into the two classes named by Sextus Empiricus:—Dogmatic and Agonistic, or Expository and Polemical. The advantage of this division (which is adopted by Mr. Grote under the titles of 'Dialogues of Exposition' and 'Dialogues of Search') is its clearness and practicability. There will always be something arbitrary in the endeavour to classify the Dialogues according to their subject-matter, because they are almost all occupied with more than one subject. Thus the *Republic* would certainly be classed under the head of Ethics; yet it contains very important discussions on the nature of human knowledge, and on the theory of Ideas; and these discussions ought properly to be classed under the head of Metaphysics. Again, the *Phædrus* is more than half occupied with discourses about Love; but the real subject of the work is Dialectics.

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* *Penny Cyclopædia*, Art. *Plato*, p. 236.

† Van Heusde, *Initia Philosophiæ Platonicæ*, i. 72.

In the division here proposed such inconveniences are avoided. It is easy to see which dialogues are polemical and which are expository. The *Hippias Major* and the *Timæus* may stand as representatives of each class. In the former no attempt is made to settle the question raised. Socrates contents himself with refuting every position of his antagonist. In the *Timæus* there is no polemic of any sort: all is calmly expository.

CHAPTER III.

PLATO'S METHOD.

'THE first thing it is necessary to do in science,' says Aristotle, 'is to state all the difficulties which have to be resolved. These difficulties are the diverse contradictory opinions of philosophers and the obscurities which they have failed to clear up. The true solution is nothing but the clearing up of those difficulties. . . . We are necessarily in the best position to decide after hearing all the reasons of the opposing advocates.'*

This is the philosophic justification of the course pursued by Socrates and Plato in submitting all questions to the rigorous process of cross-examination. It is a vindication of that constant (and wearisome) employment of the purely negative and dubitative process, which is the main purpose of the Dialogues of Search. Debate was good in itself, good if it ended in no other result than that of impressing on the mind a conviction of ignorance. We must not seek in Plato for more than debate; we must not seek conclusions, at least not in the Dialogues of Search. Mr. Grote truly says:—

'The modern reader must be invited to keep these postulates in mind, if he would fairly appreciate the Platonic Dialogues of Search. He must learn to esteem the mental exercise of free debate as valuable in itself, even though the goal recedes before him in proportion to the steps which he makes in advance. He perceives a lively antithesis of opinions, several distinct and dissentient points of view opened, various tentatives of advance made and broken off. He has the first half of the process of truth-seeking, without the last; and even without full certainty that the last half can be worked out, or that the problem as propounded is one which admits of an affirmative solution. But Plato presumes that the search will be renewed, either by the same interlocutors or by others. He reckons upon responsive energy in the youthful subject: he addresses himself to men of earnest purpose and stirring intellect, who will be spurred on by the dialectic exercise itself to farther pursuit—men who, having listened to the working out of different points of view, will meditate on these points for themselves, and apply a judicial estimate conformable to the measure of their own minds. Those respondents, who, after having been puzzled and put to shame by one cross-examination, became disgusted and never presented themselves again—were despised by Sokrates as lazy and stupid. For him, as well as for Plato, the search after truth counted as the main business of life.

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* ARISTOTLE, *Metaph.* ii. 1, 995: ἔτι δὲ βέλτιον ἀνάγκη ἔχειν πρὸς τὸ κρῖναι τὸν ὥσπερ ἀντιδίκων καὶ τῶν ἀμφισβητούντων λόγων ἀκηκοότα πάντων.

Another matter must here be noticed, in regard to these Dialogues of Search. We must understand how Plato conceived the goal towards which they tend: that is, the state of mind which he calls *knowledge* or *cognition*. Knowledge (in his view) is not attained until the mind is brought into clear view of the Universal Forms or Ideas, and intimate communion with them: but the test (as I have already observed) for determining whether a man has yet attained this end or not, is to ascertain whether he can give to others a full account of all that he professes to know, and can extract from them a full account of all that they profess to know: whether he can perform, in a manner exhaustive as well as unerring, the double and correlative function of asking and answering: in other words, whether he can administer the Sokratic cross-examination effectively to others, and reply to it without faltering or contradiction when administered to himself. Such being the way in which Plato conceives knowledge, we may easily see that it cannot be produced, or even approached, by direct, demonstrative, didactic, communication: by simply announcing to the hearer, and lodging in his memory, a theorem to be proved, together with the steps whereby it is proved. He must be made familiar with each subject on many sides, and under several different aspects and analogies: he must have had before him objections with their refutation, and the fallacious arguments which appear to prove the theorem, but do not really prove it: he must be introduced to the principal counter-theorems, with the means whereby an opponent will enforce them: he must be practised in the use of equivocal terms and sophistry, either to be detected when the opponent is cross-examining him, or to be employed when he is cross-examining an opponent. All these accomplishments must be acquired, together with full promptitude and flexibility, before he will be competent to perform those two difficult functions, which Plato considers to be the test of knowledge. You may say that such a result is indefinitely distant and hopeless: Plato considers it attainable, though he admits the arduous efforts which it will cost. But the point which I wish to show is, that if attainable at all, it can only be attained through a long and varied course of such dialectic discussion as that which we read in the Platonic Dialogues of Search. The state and aptitude of mind called knowledge, can only be generated as a last result of this continued practice (to borrow an expression of Longinus). The Platonic method is thus in perfect harmony and co-ordination with the Platonic result, as described and pursued.'

It is a mistake to interpret these debates as mere displays of dialectical ingenuity: they were the gropings of Plato himself.

'The doubts and difficulties were certainly exercises to the mind of Plato himself, and were intended as exercises to his readers: but he has nowhere provided a key to the solution of them. Where he propounds positive dogmas, he does not bring them face to face with objections, nor verify their authority by showing that they afford satisfactory solution of the difficulties exhibited in his negative procedure. The two currents of his speculation, the affirmative and the negative, are distinct and independent of each other. Where the affirmative is especially present (as in *Timæus*), the negative altogether disappears. Timæus is made to proclaim the most sweeping theories, not one of which the real Sokrates would have suffered to pass without abundant cross-examination: but the Platonic Sokrates hears them with respectful silence, and commends afterwards. The declaration so often made by Sokrates that he is a searcher, not a teacher—that he feels doubts keenly himself, and can impress them upon others, but cannot discover any good solution of them—this declaration, which is usually considered mere irony, is literally true. The Platonic theory of Objective Ideas separate and absolute, which the commentators often announce as if it cleared up all difficulties—not only clears up none, but introduces fresh ones belonging to itself. When Plato comes forward to affirm, his dogmas are altogether *à priori*: they enunciate preconceptions or hypotheses, which derive their hold upon his belief, not from any aptitude for solving the objections which he has raised, but from deep and solemn sentiment of some kind or other—religious, ethical, æsthetical, poetical, &c., the worship of numerical symmetry or exactness, &c. The dogmas are enunciations of some grand sentiment of the divine, good, just, beautiful, symmetrical, &c., which Plato follows out into corollaries. But this is a process of itself; and while he is performing it, the doubts previously raised are not called up to be solved, but are forgotten or kept out of sight. It is therefore a mistake to suppose that Plato ties knots in one dialogue only with a view to untie them in another; and that the doubts which he propounds are already fully solved in his own mind, only that he defers the announcement of the solution until the embarrassed hearer has struggled to find it for himself.'

The Method employed by Plato was the Subjective. The test he uniformly applied was that of submitting the external order to his conceptions of what was rational, without previously determining how he came by those conceptions of rationality, and what guarantee they offered of being themselves demonstrable. 'Laying down some general hypothesis,' he says in the *Phædo*, 'which I considered to be the best, I accepted as truth whatever squared with it respecting cause, as well as other things.' This frank avowal is confirmed by every speculation. When he attempts to prove that the wrong-doer is more miserable than the wrong-sufferer, he never attempts to show what Good and Evil are, or by what characters they may be recognised; he only intimates that they correspond with certain conceptions in his own mind; and in endeavouring to prove that the successful criminal *must* be miserable, though no misery is felt by him, Plato merely displays his habitual indifference to facts in favour of deductive conclusions. Having assumed the existence of the Ideas of Greatness and Littleness apart from great and little Things, he concluded that it was through participation in these Ideas that things were great and little—whereas the Objective Method necessarily leads to the conclusion that from great and little Things we form the abstractions of Greatness and Littleness. 'If I am told,' he says, 'that one man is taller than another by the head, and that this one is shorter than the first by the same, I should not admit the proposition, but repeat my own creed, that whatever is greater than another is greater by nothing else except by Greatness, whatever is less than another is less only through Littleness. For I should fear to be entangled in a contradiction if I affirmed that the greater man was greater, and the lesser man less, by the same thing (the head), and next in saying that a man was greater by a head which is itself little. . . Again, when One is placed beside One, or when One is divided, I should not affirm that juxtaposition was the cause of Two in the first case, and division in the second. I proclaim loudly that I know of no other cause for its becoming Two, except participation in the essence of Twoness (the Dyad). That which becomes Two must partake of the Dyad; as one of the Monad.'

It may puzzle the modern reader to conceive a man of Plato's intellect not being suddenly made aware of the fallacious nature of a Method which could lead to such results. But Plato, though not unaware of the violence to common sense which might seem to lie in his conclusions, thus meets the objection: 'If any impugn the hypothesis, I should make no reply to him until I had followed out all its consequences to ascertain whether they were consistent with it. I should then, when the proper time arrived, defend the hypothesis, assuming some other hypothesis yet more general, *such as appeared to me to be best*, until I came to something fully sufficient. But I would not permit myself to confound the discussion of the hypothesis itself with the discussion of its consequences. This is a method which cannot lead to truth, though it is much practised by disputants who pride themselves on their ingenuity when they thus throw things into confusion.'*

This resolution of hypotheses into hypotheses of greater generality in an ascending progression until some indisputable axiomatic truth is reached, is the point of departure in the Platonic system from the formula of Protagoras, 'Man is the measure of all things.' It affirms a possibility of absolute truth; escapes from the scepticism inherent in the doctrine of the relativity of knowledge, by the confidence in the truth of universal propositions. But it should be remarked that Plato gradually worked his way to this point. At the time when he composed the *Phædo* he had not seen the importance of this position; indeed, he then held the Ideal Theory only as an hypothesis. Later on, in the *Republic*, he regards every hypothesis as a mere ladder by which to ascend into a region above hypothesis, the Region of First Principles; and he there blames mathematicians because they render no account of the hypotheses from which they start. In the *Timæus* he declares that propositions are equivalent to the natures they affirm, and that those which relate only to Essences and Ideas, are indisputable; those which relate to the world of Sense, dealing only with copies of Ideas, are less and less trustworthy in proportion to their sensuous nature: they are at the best only probabilities, whereas universal propositions are primary truths, seen to be such by intuition.

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* These passages are paraphrases rather than translations from the *Phædo*, which are given by Mr. Grote, and which I have in turn slightly modified.

'The dove cleaving the thin air,' says Kant, 'and feeling its resistance, might suppose that in airless space her movements would be more rapid. Precisely in this way Plato thought that by abandoning the sensuous world, because of the limits it placed to his understanding, he might more successfully venture into the void space of pure intellect.' *

Socrates, as we have shown, relied upon the Inductive or Analogical reasoning, and on Definitions, as the two principles of investigation. The incompleteness of these principles we have already pointed out; and Plato himself found it necessary to enlarge them.

Definitions form the basis of all Philosophy. To know a thing you must also know what it is *not*. In ascertaining the real Definition, Socrates employed his *accoucheur's* art (τέχνη μαιευτική), and proceeded inductively. Plato also used these arts; but he added to them the more efficient processes of Analysis and Synthesis, of Generalization and Classification.†

Analysis, which was first insisted on by Plato as a philosophic process, is the decomposition of the whole into its separate parts; whereby, after examining those parts attentively, the idea of the whole is correctly ascertained. To use Platonic language, Analysis is seeing the One in the Many. Thus, if the subject be Virtue, the general term Virtue must first be decomposed into all its parts, i.e. into all the Virtues; and from a thorough examination of the Virtues a clear idea of Virtue may be attained.‡

It is remarkable that in all the Dialogues, no matter how various their object and opinions, he is always found insisting on the relation of universals to particulars. To detect the One in the Many is the constant aim. He is always interrogating the meaning of general terms and abstractions embodied in popular language. And Plato was not only here opening a road towards the establishment of formal logic, but was conscious that he was opening such a road.

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* KANT, *Kritik*; *Einleitung*.

† Consult VAN HEUSDE, *Initia Philosoph. Platonicæ*, ii. pars 97, 98.

‡ A good example of his mode of conducting an inquiry may be seen in the *Gorgias*.

Perhaps the most consistent opinion maintained by him was that on Classification—the search for the One in the Many and the Many in the One—the breaking down of an extensive genus into species and sub-species—which Mr. Grote believes to have been an important novelty in those days. 'If we transport ourselves back to his time, I think that such a view of the principles of classification implies a new and valuable turn of thought. There existed then no treatises of logic; no idea of logic as a scheme of mental procedure; no sciences out of which it was possible to abstract the conception of a regular method more or less diversified. On no subject was there any mass of facts or details collected large enough to demand some regular system for the purpose of arranging and rendering them intelligible. Classification to a certain extent is of necessity involved, consciously or unconsciously, in the use of general terms. But the process itself had never been made a subject of distinct consciousness or reflection to any one (as far as our knowledge reaches) in the time of Plato. No one had yet looked at it as a process, natural indeed to the human intellect up to a certain point and in a loose manner, but capable both of great extension and great improvement, and requiring especial study, with an end deliberately set before the mind, in order that it might be employed with advantage to equalize and render intelligible even common and well-known facts.' The fundamental principle of classification—that it should be objective and founded on the relations of objects, not subjective and founded on the relations of objects to us—Plato very distinctly grasped. Goethe has made it the matter of an interesting essay, *Der Versuch als Vermittler von Object und Subject*, not, indeed, in reference to classification, but to philosophic inquiry generally. The tendency of the uncultivated mind is always to classify things on emotional rather than on intellectual grounds. The groups of objects thrown together in such minds, and conceived in immediate association, are such as to suggest the same or kindred emotions; pleasure or pain, love or hatred, hope or fear, admiration, contempt, disgust, jealousy, ridicule. Community of emotion is a stronger bond of association between different objects than community in any attribute not immediately interesting to the emotions, and appreciable only intellectually. Those objects which have nothing else in common except appeal to the same earnest emotion will often be called by the same general name, and will be constituted members of the same class. To attend to attributes in any other point of view than in reference to the amount and kind of emotion which they excite is a process uncongenial to the ordinary taste. It is against this natural propensity that Plato enters his protest in the name of intellect and science. For the purpose of obtaining a classification founded on real intrinsic affinities we must exclude all reference to the emotions; we must take no account whether a thing be pleasing or hateful, sublime or mean; we must bring ourselves to rank objects useful or grand in the same logical compartment with objects hurtful or ludicrous.

Definitions were to Plato what general or abstract ideas were to later metaphysicians. The individual thing was held to be transitory and phenomenal, the abstract idea was eternal. Only concerning the latter could philosophy occupy itself. But Socrates, although insisting on proper Definitions, had no conception of the classification of those Definitions which must constitute philosophy. Plato, therefore, by the introduction of this process, shifted philosophy from the ground of inquiries into man and society to that of Dialectics. What was Dialectics? It was the art of *discoursing*, i.e. the art of thinking, i.e. logic. Plato uses the word Dialectics, because with him Thinking was a silent discourse of the soul, and differed from speech only in being silent.

Dialectics (or, in modern phrase, Ontology) comprised the highest cognitions. Truth belongs exclusively to them. But there were other, inferior sciences, which, having more or less affinity to Dialectics, may be classified accordingly. Mathematics approaches them most nearly; but they are not perfect. Hear what is said in the *Republic** :—

'You will understand me more easily when I have made some previous observations. I think you know that the students of subjects like geometry and calculation, assume by way of materials, in each investigation, all odd and even numbers, figures, three kinds of angles, and other similar data. These things they are supposed to know, and having adopted them as hypotheses, they decline to give any account of them, either to themselves or to others, on the assumption that they are self-evident; and, making these their starting point, they proceed to travel through the remainder of the subject, and arrive at last, with perfect unanimity, at that which they have proposed as the object of investigation.

'I am perfectly aware of the fact, he replied.

'Then you also know that they summon to their aid visible forms, and discourse about them, though their thoughts are busy not with these forms, but with their originals, and though they discourse not with a view to the particular square and diameter which they draw, but with a view to the absolute square and the absolute diameter, and so on. For while they employ by way of images those figures and diagrams aforesaid, which again have their shadows and images in water, they are really endeavouring to behold those abstractions which a person can only see with the eye of thought.

'True.

'This, then, was the class of things which I called intellectual; but I said that the soul is constrained to employ hypotheses while engaged in the investigation of them—not travelling to a first principle (because it is unable to step out of, and mount above, its hypotheses), but using, as images, the actual objects that are copied by the things below—which objects, as compared with the copies, have a reputation for clearness, and are held in esteem.

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* Translated by Messrs. DAVIES and VAUGHAN.

'I understand you to be speaking of the subject-matter of geometry, and its kindred arts.

'Again, by the second segment of the intellectual world understand me to mean all that the mere reasoning process apprehends by the force of dialectic, when it avails itself of hypotheses not as first principles, but as genuine hypotheses, that is to say, as stepping-stones and impulses, whereby it may force its way up to something that is not hypothetical, and arrive at the first principle of everything, and seize it in its grasp; which done, it turns round, and takes hold of that which takes hold of this first principle, till at last it comes down to a conclusion, calling in the aid of no sensible object whatever, but simply employing abstract, self-subsisting forms, and terminating in the same.

'I do not understand you so well as I could wish, for I believe you to be describing an arduous task; but at any rate I understand that you wish to declare distinctly, that the field of real existence and pure intellect, as contemplated by the science of dialectic, is more certain than the field investigated by what are called the arts, in which hypotheses constitute first principles, which the students are compelled, it is true, to contemplate with the mind and not with the senses; but, at the same time, as they do not come back, in the course of inquiry, to a first principle, but push on from hypothetical premisses, you think that they do not exercise pure reason on the questions that engage them, although taken in connexion with a first principle these questions come within the domain of the pure reason. And I believe you apply the term understanding, not pure reason, to the mental habit of such people as geometricians—regarding understanding as something intermediate between opinion and pure reason.'

From this brief outline of Plato's Method may be seen how erroneous is the notion which supposes that his merit was exclusively literary. He was pre-eminently a severe Dialectician. This is his leading peculiarity; but he has clothed his method in such attractive forms that the means have been mistaken for the end. His great dogma, like that of his master, Socrates, was the necessity of an untiring investigation into general terms (or abstract ideas).

'The natural tendency of the real lover of knowledge is to strain every nerve to reach real existence; and far from resting at those multitudinous particular phenomena whose existence falls within the region of opinion, he presses on, undiscouraged, and desists not from his passion, till he has apprehended the nature of each thing as it really is, with that part of his soul whose property it is to lay hold of such objects, in virtue of its affinity to them;—and having, by means of this, verily approached and held intercourse with that which verily exists, he begets wisdom and truth, so that then, and not till then, he knows, enjoys true life, and receives true nourishment, and is at length released from his travail-pangs.'

He did not look on life with the temporary interest of a passing inhabitant of the world. He looked on it as an immortal soul longing to be released from its earthly prison, and striving to catch by anticipation some faint glimpses of that region of eternal Truth where it would some day rest. The fleeting phenomena of this world he knew were nothing more; but he was too wise to overlook them. Fleeting and imperfect as they were, they were the indications of that eternal Truth for which he longed, footmarks on the perilous journey, and guides to the wished-for goal. Long before him wise and meditative men perceived that sense-knowledge would only be knowledge of phenomena; that everything men call Existence was but a perpetual flux—a something which, always *becoming*, never *was*; that the reports which our senses made of these things partook of the same fleeting and uncertain character. He could not, therefore, put his trust in them; he could not believe that Time was anything more than the wavering image of Eternity.

The transitory phenomena were not true existences; but they were *images* of true existences. Interrogate them; classify them; discover what qualities they have in common; discover that which is invariable, necessary, amidst all that is variable, contingent; discover The One in the Many, and you have penetrated the secret of Existence.[*]

To reduce this Platonic language to a modern formula: Things exist as classes and as individuals. These classes are but species of higher classes; e.g. men are individuals of the class Man, and Man is a species of the class Animal. But Philosophy, which is deductive, has nothing to do with individuals; it is occupied solely with classes. General Terms, or abstract ideas, are therefore the materials with which Philosophy works.

We are here led to the origin of the famous dispute of Realism and Nominalism, which may be summed up in a sentence. The Realists maintain, that every General Term (or Abstract idea), such as Man, Virtue, &c., has a real and independent existence, quite irrespective of any concrete individual determination, such as Smith, Benevolence, &c. The Nominalists, on the contrary, maintain that all General Terms are but the creations of the mind, designating no distinct entities, being merely used as *marks* of aggregate conceptions.

In Realism, Plato separated himself from his master Socrates. On this point we have the indubitable, but hitherto little noticed, testimony of Aristotle, who, after speaking of the Socratic Method of Induction and Definition, says:—'But Socrates gave neither to General Terms nor to Definitions a distinct existence.'[†] This is plain enough. Aristotle, in continuation, obviously speaks of Plato:—'Those who succeeded him gave to these General Terms a separate existence, and called them *Ideas.*'

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[*] To refer the reader to particular passages wherein this doctrine is expressed, or implied, would be endless: it runs through nearly all his works. Perhaps the easiest passage where it may be read is *Philebus*, pp. 233–6.

[†] *Met.* xiii. 4, 'Αλλ' ὁ μὲν Σωκράτης τὰ καθόλου οὐ χωριστὰ ἐποίει, οὐδὲ τοὺς ὁρισμούς.—The wording of this may appear strange. Many have supposed

It will be seen in this sketch of the Method that Plato really took an important step in advance, not only by the foundations which he may be said to have laid for a science of Logic, but also by rescuing Philosophy from the dissolving tendencies of scepticism in the reassertion of its claim to Certitude. Whether the criterion which he advanced were or were not a valid one, is another question; that belongs to Philosophy; but History at least will recognise that the claim was made, and for centuries was accepted. If the Subjective Method is a pathway to the truth, if Logic is the organon of discovery, if ideas are the measures of existences, if the external order corresponds with the internal order, and everything exists as we think it, then Plato's claim is irresistible. Up to his time there had been dogmatism and scepticism; he first saw the necessity of controlling dogmatism by scepticism, while the final conclusions of research must nevertheless be dogmatic and based upon a criterion of certitude. If in his own researches he vacillated, he did not vacillate as to the integrity of his Method. He was assured that there was a ground of certitude, assured that this was in universal propositions; to arrive at such propositions was therefore the aim of research. Socrates took up the purely negative side. Plato looked on this as the indispensable prelude to an affirmative attitude, and by his criterion he gave a logical basis to the Subjective Method.

universals to exist separately; but how a separate existence could be given to Definitions may puzzle the stoutest Realist. The difficulty vanishes, if we understand that the Platonic Definitions and Universals were the same things; Aristotle's phrase is, however, ambiguous.

CHAPTER IV.

Platonic Theories.

ALTHOUGH there is no Platonic system properly so called, nor any theories that can be said to have held more than a temporary hold of his sceptical and progressive intellect, since even those that most frequently recur are variously conceived by him, and the description which would be accurate if drawn from one Dialogue, would be inaccurate if applied to the same theory in another, there are, nevertheless, certain theories which have become famous as Platonic, and which, because they have exercised great influence on the course of speculative development, must be briefly expounded here.

The word Idea has undergone more changes than almost any word in philosophy; and nothing can well be more opposed to the modern sense of the word than the sense affixed to it by Plato. If we were to say, that *Ideas* were tantamount to the *Substantial Forms* of the schoolmen, we should run the risk of endeavouring to enlighten an obscurity by an obscurity no less opaque. If we were to say, that the Ideas were tantamount to *Universals*, the same objection might be raised. If we were to say, that the Ideas were *General Terms* or *Abstract Ideas*, we should mislead every Nominalist into the belief that Plato was an 'Idealist;' otherwise the last explanation would be pertinent.

It will be better, however, to describe first, and to define afterwards. Plato, according to Aristotle, gave to General Terms a distinct existence, and called them Ideas. He became a Realist; and asserted that there was the Abstract Man no less than the Concrete Men: the latter were Men only in as far as they participated in the Ideal Man. No one will dispute that we have a conception of a genus—that we do conceive and reason about Man quite independently of Smith or Brown, Peter or Paul. If we have such a conception, whence did we derive it? Our experience has only been of the Smiths and Browns, the Peters and Pauls; we have only known *men.* Our senses tell us nothing of Man. Individual objects only give individual knowledge. A number of stones placed before us will afford us no knowledge, will not enable us to say, These are stones; unless we have previously learned what is the nature of Stone. So, also, we must know the nature of Man, before we can know that Jones and Brown are Men. We do know Man, and we know Men; but our knowledge of the former is distinct from that of the latter, and must have a distinct source; so, at least, thought the Realists. What is that source? Reflection, not sense.

The Realists finding The One in The Many,—in other words, finding certain characteristics common to all men, and not only common to them but necessary to their being Men,—abstracted these *general* characteristics from the *particular* accidents of individual men, and out of these characteristics made what they called *Universals* (what we call genera). These Universals exist *per se.* They are not only conceptions of the mind; they are entities; and our perceptions of them are formed in the same manner as our perceptions of other things.

If the conception of genera be rendered objective, the Realist doctrine is explained. Our *conceptions* were held by Realism to be *perceptions* of existing Things; these Plato called Ideas, the only real existences: they were the *noumena* of which all individual things were the *phenomena.* If then we define the Platonic 'Idea' to be a 'Noumenon,' or 'Substantial Form,' we shall not be far wrong: and most of the disputes respecting the real meaning of the term will be set aside; for example, Ritter's account of the word—in which he is at a loss to say whether Idea means the universal, or whether it does not also mean the individual. That Plato usually designates a General Term by the word Idea, there can be no doubt; there can be no doubt also that he sometimes designates the essence of some individual thing an Idea, as in the *Republic*, where he speaks of the Idea of a Table from which all other Tables were formed. There is no contradiction in this:—a general form is as necessary for Tables as for Men: this Idea, therefore, equally partakes of generality, even where exemplified by particular things.

Aristotle, in a memorable passage, says:—'Plato followed Socrates respecting definitions, but, accustomed as he was to inquiries into universals (*διὰ τὸ ζητῆσαι περὶ τῶν καθόλου*), he supposed that definitions should be those of *intelligibles* (i.e. noumena), rather than of *sensibles* (i.e. phenomena): for it is impossible to give a general definition to sensible objects, which are always changing. Those Intelligible Essences he called Ideas; adding that sensible objects were different from Ideas, and received from them their names; for it is in consequence of their *participation* (*κατὰ μέθεξιν*) in Ideas, that all objects of the same genus receive the same name as the Ideas. He introduced the word participation. The Pythagoreans say, that "Things are the copies of Numbers." Plato says, "the participation;" he only changes the name.'*

It may be affirmed that Plato did more than change a name. The conception alone of Ideas, as generical types, is a great advance on the conception of Numbers. But Plato did not stop here. He ventured on an explanation of the nature and the degree of that participation of sensible objects in Ideas. And Aristotle himself, in another place, points out a fundamental distinction. 'Plato thought that sensible Things no less than their causes were Numbers; *but the causes are Intelligibles* (*i.e.* Ideas), *and other things Sensibles*.'† This gives a new character to the theory; it renders it at once more clear and more applicable.

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* *Metaph.* i. 6.

† *Metaph.* i. 7, Ἀλλὰ τοὺς μὲν νοητοὺς αἰτίους, τούτους δὲ αἰσθητούς.

The greatest difficulty felt in the Ideal theory is that of participation. How, and in how far, does this participation take place? A question which Plato did not, and could not, solve. All that he could answer was, that human knowledge is necessarily imperfect, that sensation troubles the intellectual eye, and only when the soul is free from the hindrances of the body shall we be able to discern things in all the ineffable splendour of truth. But, although our knowledge is imperfect, it is not false. Reason enables us to catch some glimpses of the truth, and we must endeavour to gain more. Whatever is the object of the soul's thought, purely as such, is real and true. The problem is to separate these glimpses of the truth from the prejudices and errors of mere opinion.

In this doctrine, opinion is concerned only with Appearances (phenomena): philosophy, with Existence. Our sensation, judgments, opinions, have only reference to *τὰ γιγνόμενα*; our philosophic conceptions have reference to *τὰ ὄντα.* The whole matter is comprised in Plato's answer to Diogenes, who thought he demolished the theory of Ideas by exclaiming, 'I see indeed a table; but I see no Idea of a table.' Plato replied, 'Because you see with your eyes, and not with your reason.' Hence, at the close of the 5th Book of his *Republic*, he says that those only are to be called Philosophers who devote themselves to the contemplation of *τὸ ὄν*, i. e. Existence.

'When a man knows, does he know something or nothing? Be so good, Glaucon, as to make answer in his behalf.

'My answer will be, that he knows something.

'Something that exists or does not exist?

'Something that exists: for how could a thing that does not exist be known?

'Are we then quite sure of this fact, in whatever variety of ways we might examine it, that what completely exists may be completely known, whereas that which has no existence at all must be wholly unknown?

'We are perfectly sure of it.

'Good; now, if there be anything so constituted, as at the same time to be and not to be, must it not lie somewhere between the purely existent and the absolutely non-existent?

'It must.

'Well then, as knowledge is correlative to the existent, and the negation of knowledge necessarily to the non-existent, must we not try to find something intermediate between science and ignorance, if there is anything of the kind, to correspond to this that is intermediate between the existent and the non-existent?

'Yes, by all means.

'Do we speak of opinion as a something?

'Undoubtedly we do.

'Do we consider it a faculty distinct from science or identical with it?

'Distinct from it.

'Therefore opinion is appointed to one province and science to another, each acting according to its own peculiar power.

'Just so.

'Is it not the nature of science, as correlative to the existent, to know how the existent exists? But first there is a distinction which I think it necessary to establish.

'What is that?

'We shall hold that faculties, as a certain general class, are the things whereby we, and every other thing, are able to do whatever we can do; for example, I call sight and hearing faculties, if you happen to understand the special conception which I wish to describe.

'I do understand it.

'Then let me tell you what view I take of them. In a faculty I do not see either colour or form, or any of those qualities that I observe in many other things, by regarding which I can in many cases distinguish to myself between one thing and another. No, in a faculty I look only to its province and its function, and thus I am led to call it in each case by this name, pronouncing those faculties to be identical whose provinces and functions are identical, and those diverse whose provinces and functions are diverse. But pray how do you proceed?

'Just in the same way.

'Now then, return with me, my excellent friend. Under what general term do you class science? Do you make it a faculty?

'Yes I do; it is of all the faculties the most powerful.

'Well, is opinion a faculty; or are we to refer it to some other denomination?

'Not to any other; for that whereby we are able to opine, can only be opinion.

'Well, but a little while ago you admitted that science and opinion are not identical.

'Why how could a sensible man identify the fallible with the infallible?

'Very good: so we are clearly agreed that opinion is a thing distinct from science.

'It is.

'If so, each of them has by its nature a different province, and a different efficacy.

'The inference is inevitable.

'Science, I believe, has for its province to know the nature of the existent.

'Yes.

'And the province of opinion is, we say, to opine.

'Yes.

'Does opinion take cognizance of precisely that material which science knows? In other words, is the object-matter of opinion identical with that of science? or is that impossible?

'It is impossible, after the admissions we have made; that is, if it be granted that different faculties have different provinces, and that both opinion and science are faculties, and that the two are distinct,—all which we affirm. These premises make it impossible to identify the object-matter of science and that of opinion.

'Then, if the existent is the object-matter of knowledge, that of opinion must be something other than the existent?

'It must.

'Well then, does opinion exercise itself upon the non-existent, or is it impossible to apprehend even in opinion that which does not exist? Consider—does not the person opining carry his thought towards something? Or is it possible to have an opinion, but an opinion about nothing?

'It is impossible.

'Then the person who opines has an opinion about some one thing?

'Yes.

'Well, but the non-existent could not be called some one thing; it might, on the contrary, with the greatest truth be styled nothing.

'Just so.

'But to the non-existent we were constrained to assign ignorance, and to the existent, knowledge.

'And rightly.

'Then neither the existent nor the non-existent is the object of opinion?

'No.

'Therefore opinion cannot be either ignorance or knowledge.

'Apparently not.

'Then does it lie beyond either of these, so as to surpass either knowledge in certainty or ignorance in uncertainty?

'It does neither.

'Then tell me, do you look upon opinion as something more dusky than knowledge, more luminous than ignorance?

'Yes, it is strongly so distinguished from either.

'And does it lie within these extremes?

'Yes.

'Then opinion must be something between the two.

'Precisely so.

'Now a little while back, did we not say, that if anything could be found so constituted as at the same time to be and not to be, it must lie between the purely existent and the absolutely not existent, and must be the object neither of science nor yet of ignorance, but of a third faculty, which should be similarly discovered in the interval between science and ignorance?

'We did.

'But now we have discovered between these two a faculty which we call opinion.

'We have.

'It will remain then for us, apparently, to find what that is which partakes both of being and of not being, and which cannot be rightly said to be either of these absolutely: in order that, should it discover itself to us, we may justly proclaim it to be the object of opinion; thus assigning extremes to extremes, and means to means. Am I not right?' . . . .

'Hence we have discovered, apparently, that the mass of notions, current among the mass of men, about beauty, justice, and the rest, roam about between the confines of pure existence and pure non-existence.

'We have.

'And we before admitted, that if anything of this kind should be brought to light, it ought to be described as the object of opinion and not of knowledge,—these intermediate rovers being caught by the intermediate faculty.

'We did make this admission.

'Therefore, when people have an eye for a multitude of beautiful objects, but can neither see beauty in itself, nor follow those who would lead them to it,—when they behold a number of just things, but not justice in itself, and so in every instance, we shall say they have in every case an opinion, but no real knowledge of the things about which they opine.

'It is a necessary inference.

'But what, on the other hand, must we say of those who contemplate things as they are in themselves, and as they exist ever permanent and immutable? Shall we not speak of them as knowing, not opining?

'That also is a necessary inference.

'Then shall we not assert that such persons admire and love the objects of knowledge,—the others, the objects of opinion? For we have not forgotten, have we, that we spoke of these latter as loving and looking upon beautiful sounds and colour and the like, while they will not hear of the existence of an abstract beauty?

'We have not forgotten it.

'Shall we commit any fault then, if we call these people philodoxical rather than philosophical, that is to say, lovers of opinion rather than lovers of wisdom? And will they be very much offended with us for telling them so?

'No, not if they will take my advice: for it is wrong to be offended with the truth.

'Those therefore that set their affections on that which in each case really exists, we must call not philodoxical, but philosophical?

'Yes, by all means.'*

The phenomena which constitute what we perceive of the world (i.e. the world of sense) are but the resemblances of matter to Ideas. In other words, Ideas are the forms of which material Things are copies; the *noumena*, of which all that we perceive are the Appearances (phenomena). But we must not suppose these copies to be exact; they do not at all participate in the nature of their models; they do not even represent them, otherwise than in a superficial manner. Or perhaps it would be more correct to say, that Ideas do not resemble Things; the man does not resemble his portrait, although the portrait may be a tolerable resemblance of him; a resemblance of his aspect, not of his nature. If, then, the Ideas as they exist realized in Nature do not accurately resemble the Ideas as they exist *per se*—i.e. if the phenomena are not exact copies of the noumena—how are we ever to attain a knowledge of Ideas and of Truth? This question carries us to his psychology, which we must first explain before the whole conception of the Ideal theory can be made consistent.

In the *Phædrus* Socrates very justly declares his inability to explain the real nature of the soul. But though he cannot exhibit it, he can show what it resembles. Unable to give a demonstration, he can paint a picture: and that picture he paints as follow:—

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* I have availed myself of the excellent translation of the *Republic*, by Messrs. Davies and Vaughan.

'We may compare it to a chariot, with a pair of winged horses and a driver. In the souls of the Gods, the horses and the drivers are entirely good: in other souls only partially so, one of the horses excellent, the other vicious. The business, therefore, of the driver is extremely difficult and troublesome.

'Let us now attempt to show how some living beings came to be spoken of as mortal, and others as immortal. All souls are employed in taking care of the things which are inanimate; and travel about the whole of heaven in various forms. Now, when the soul is perfect, and has wings, it is carried aloft, and helps to administer the entire universe; but the soul which loses its wings, drops down until it catches hold of something solid, in which it takes up its residence; and, having a dwelling of clay, which seems to be self-moving on account of the soul which is in it, the two together are called an animal, and mortal. The phrase "immortal animal" arises not from any correct understanding, but from a fiction: never having seen, nor being able to comprehend, a deity, men conceived an immortal being, having a body as well as a soul, united together for all eternity. Let these things, then, be as it pleases God: but let us next state from what cause a soul becomes unfledged.

'It is the nature of wings to lift up heavy bodies towards the habitation of the Gods; and, of all things which belong to the body, wings are that which most partakes of the divine. The divine, includes the beautiful, the wise, the good, and everything of that nature. By these the wings of the soul are nourished and increased; by the contraries of these, they are destroyed.

'Jupiter, and the other Gods, divided into certain bands, travel about in their winged chariots, ordering and attending to all things, each according to his appointed function; and all who will, and who can, follow them. When they go to take their repasts, they journey towards the summit of the vault of heaven. The chariots of the Gods, being in exact equilibrium, and therefore easily guided, perform this journey easily, but all others with difficulty; for one of the two horses, being of inferior nature, when he has not been exceedingly well trained by the driver, weighs down the vehicle, and impels it towards the earth.

'The souls which are *called* immortal (viz. the Gods), when they reach the summit, go through, and, standing upon the convex outside of heaven, are carried round and round by its revolution, and see the things which lie beyond the heavens. No poet has ever celebrated these supercelestial things, nor ever will celebrate them, as they deserve. This region is the seat of *Existence* itself: Real Existence, colourless, figureless, and intangible Existence which is visible only to Mind, the charioteer of the soul, and which forms the subject of Real Knowledge. The minds of the Gods, which are fed by pure knowledge, and all other thoroughly well-ordered minds, contemplate for a time this universe of 'Being' *per se*, and are delighted and nourished by the contemplation, until the revolution of the heavens brings them back again to the same point. In this circumvolution, they contemplate Justice itself, Temperance itself, and Knowledge; not that knowledge which has a generation or a beginning, not that which exists in a subject which is any of what we term beings, but that Knowledge which exists in Being in general; in that which really Is. After thus contemplating all real existences, and being nourished thereby, these souls again sink into the interior of the heavens, and repose.

'Such is the life of the Gods. Of other souls, those which best follow the Gods, and most resemble them, barely succeed in lifting the head of the charioteer into the parts beyond the heavens, and, being carried round by the circumvolution, are enabled with difficulty to contemplate this universe of Self-Existence. Others, being encumbered by the horses, sometimes rising and sometimes sinking, are enabled to see some Existences only. The remainder only struggle to elevate themselves, and, by the unskilfulness of their drivers, coming continually into collision, are lamed, or break their wings, and, after much labour, go away without accomplishing their purpose, and return to feed upon mere opinion.

'The motive of this great anxiety to view the supercelestial plain of Truth is that the proper food of the soul is derived from thence, and, in particular, the wings, by which the soul is made light and carried aloft, are nourished upon it. Now it is an inviolable law that any soul which, placing itself in the train of the Gods, and journeying along with them, obtains a sight of any of these self-existent Realities, remains exempt from all harm until the next circumvolution, and, if it can contrive to effect this every time, it is for ever safe and uninjured. But if, being unable to elevate itself to the necessary height, it altogether fails of seeing these realities, and, being weighed down by vice and oblivion, loses its wings and falls to the earth, it enters into and animates some Body. It never enters, at the first generation, into the body of a brute animal; but that which has seen most enters into the body of a person who will become a lover of wisdom, or a lover of beauty, or a person addicted to music, or to love; the next in rank, into that of a monarch who reigns according to law, or a warrior, or a man of talents for command; the third, into a person qualified to administer the State, and manage his family affairs, or carry on a gainful occupation; the fourth, into a person fond of hard labour and bodily exercises, or skilled in the prevention and curing of bodily diseases; the fifth, into a prophet or a teacher of religious ceremonies; the sixth, into a poet, or a person addicted to any other of the imitative arts; the seventh, into a husbandman or an artificer; the eighth, into a sophist, or a courtier of the people; the ninth, into a despot and usurper. And, in all these different fortunes, they who conduct themselves justly will obtain next time a more eligible lot; they who conduct themselves unjustly, a worse. The soul never returns to its pristine state in less than ten thousand years, for its wings do not grow in a shorter time; except only the soul of one who philosophizes with sincerity, or who loves with philosophy. Such souls, after three periods of one thousand years, if they choose thrice in succession this kind of life, recover their wings in the three thousandth year, and depart. The other souls, at the termination of their first life, are judged, and, having received their sentence, are either sent for punishment into the places of execution under the earth, or are elevated to a place in heaven in which they are rewarded according to the life which they led while here. In either case they are called back on the thousandth year, to choose or draw lots for a new life. Then a human soul often passes into the body of a beast, and that of a beast, if it has ever been human, passes again into the body of a man; for a soul which has never seen the Truth at all cannot enter into the human form, it being necessary that man should be able to apprehend many things according to *kinds*, which kinds are composed of many perceptions combined by reason into *one*. Now, this mode of apprehending is neither more nor less than the *recollecting* of those things which the soul formerly saw when it journeyed along with the Gods, and, disregarding what we now call beings, applied itself to the apprehension of Real Being. It is for this reason that the soul of the philosopher is refledged in a shorter period than others; for, it constantly, to the best of its power, occupies itself in trying to recollect those things which the Gods contemplated, and by the contemplation of which they are Gods; by which means being lifted out of, and above, human cares and interests, he is, by the vulgar considered as mad while in reality he is inspired.'

This is unquestionably the poetry of philosophy, and it is from such passages that the popular opinion respecting Plato has been formed; but they represent only a small portion of the real thinker. Towards the close the reader will have remarked that the famous doctrine of *reminiscence* is implied. This doctrine may be seen fully developed in the *Phædo.* The difficulties of conceiving the possibility of any knowledge other than the sense-knowledge, which the Sophists had successfully proved to lead to scepticism, must early have troubled Plato's mind. If we know nothing but what our senses teach us, then is all knowledge trivial. Those who admit the imperfection of the senses and fall back upon Reason, beg the question. How do we know that Reason is correct? How can we be assured that Reason is not subject to some such inevitable imperfection as that to which sense is subject?

Here the ever-recurring problem of human knowledge presents itself. Plato was taught by Socrates that beyond the world of Sense, there was the world of eternal Truth; that men who differed greatly respecting individual things did not differ respecting universals; that there was a common fund of Truth, from which all human souls drew their share. Agreeing with his master that there were certain principles about which there could be no dispute, he wished to know how he came by those principles.

All who have examined the nature of our knowledge, are aware that it is partly made up of direct impressions received by the senses, and partly of ideas which never were, at least in their ideal state, perceived by the senses. It is this latter part which has agitated the schools. On the one side, men have declared it to be wholly independent of the senses—to be the pure action of the soul. In its simplest form, this doctrine may be called the doctrine of innate ideas. On the other side, men have as vigorously argued that, although all our ideas were not absolutely derived from the senses in a direct manner, yet they were all so derived in an indirect manner; thus, we have never *seen* a mermaid; but we have seen both a fish and a woman, and to combine these two impressions is all that the mind does in conceiving a mermaid.

Plato, in adopting the former view, rendered it more cogent than most of his successors; for is it not somewhat gratuitous to say, we are born with such and such ideas? It is different from saying we are born with certain faculties: *that* would be admissible. But to be driven into a corner, and on being asked, whence came those ideas? to answer, they are innate,—is a pure *petitio principii.* What proof have you that they are innate? Merely the proof that you cannot otherwise account for them.

Plato was more consistent. He said The Soul is and ever was immortal. In its anterior states of existence it had accurate conceptions of the eternal Truth. It was face to face with Existence. Now, having descended upon earth, having passed into a body, and, being subject to the hindrances of that bodily imprisonment, it is no longer face to face with Existence; it can see Existence only through the ever-changing flux of material phenomena. The world is only *becoming*, never *is*. The Soul would apprehend only the *becoming*, had it not some recollection of its anterior state—had it not in some sort the power of tracing the unvarying Idea under the varying phenomena. When, for example, we see a stone, all that our senses convey is the appearance of that stone: but, as the stone is large or small, the soul apprehends the Idea of Greatness; and this apprehension is a reminiscence of the world of Ideas, awakened by the sensation. So when we see or hear of a benevolent action, besides the fact, our Soul apprehends the Idea of Goodness. And all our recollection of Ideas is performed in the same way. It is as if in our youth we had listened to some mighty orator whose printed speech we are reading in old age. That printed page, how poor and faint a copy of that thrilling eloquence! how we miss the speaker's piercing, vibrating tones, his flashing eye, his flashing face! And yet that printed page in some dim way recalls those tones, recalls that face, and stirs us somewhat as we then were stirred. Long years and many avocations have somewhat effaced the impression he first made, but the printed words serve faintly to recall it. Thus it is with our immortal Souls. They have sojourned in that celestial region where the voice of Truth rings clearly, where the aspect of Truth is unveiled, undimmed. They are now sojourning in this fleeting, flowing river of life, stung with resistless longings for the skies, and solaced only by the reminiscences of that former state which these fleeting, broken, incoherent images of Ideas awaken in them.

It is a mistake to suppose this a mere poetical conception. Plato never sacrifices logic to poetry. If he sometimes calls poetry to his aid, it is only to express by it those ideas which logic cannot grasp, ideas which are beyond demonstration; but he never indulges in mere fancies. Instead therefore of saying that Reason was occupied with innate ideas, he consistently said that everything which the senses did not furnish was a reminiscence of the world of Ideas.

We are now in a condition to answer the question with which the last Section was closed,—How to ascertain the Truth, if Phenomena are not exact copies of Noumena? The sensation awakens recollection, and the recollection is of Truth; the soul is confronted with the many by means of Sense, and by means of Reason it detects the One in the Many; i.e. the particular things perceived by Sense awaken the recollection of Universals or Ideas. But this recollection of Truth is always more or less imperfect. Absolute Truth is for the Gods alone. No man is without some of the divine spark. Philosophers alone have any large share; and they might increase it by a proper method.

The philosophy of Plato has two distinct branches, somewhat resembling what we found in Parmenides. The universe is divided into two parts: the celestial region of Ideas, and the mundane region of material phenomena. These answer very well to the modern conception of Heaven and Earth. As the phenomena of matter are but copies of Ideas (not, as some suppose, their bodily *realization*), there arises a question: How do Ideas become Matter? In other words: How do Things participate in Ideas? We have already mooted the question, intimating that it admitted of no satisfactory solution; nor does it; and we must not be surprised to find Plato giving, at different times, two very different explanations. These two explanations are too curious to be overlooked. In the *Republic*, he says that God, instead of perpetually creating individual things, created a distinct type (Idea) for each thing. From this type all other things of the class are made. Thus, God made the Idea of a bed: according to this type, any carpenter may now fashion as many beds as he likes, in the same way as an artist may imitate in his paintings the types already created, but cannot himself create anything new. The argument, as an illustration of Plato's Method, may be given here:—

'Shall we proceed according to our usual Method? That Method, as you know, is the embracing under one general Idea the multiplicity of things which exist separately, but have the same name. You comprehend?

'Perfectly.

'Let us take anything you like. For instance, there is a multiplicity of beds and tables?

'Certainly.

'But these two kinds are comprised, one under the Idea of a bed, and the other under the Idea of a table?

'Without doubt.

'And we say that the carpenter who makes one of these articles, makes the bed or the table according to the Idea he has of each. For he does not make the Idea itself. That is impossible?

'Truly, that is impossible.

'Well, now, what name shall we bestow on the workman whom I am now going to name?

'What workman?

'Him who makes what all the other workmen make separately.

'You speak of a powerful man!

'Patience; you will admire him still more. This workman has not only the talent of making all the works of art, but also all the works of nature; plants, animals, everything else; in a word, himself. He makes the Heaven, the Earth, the Gods; everything in Heaven, Earth, or Hell.

'You speak of a wonderful workman, truly!

'You seem to doubt me. But, tell me, do you think there is no such workman? or, do you think that in one sense any one could do all this, but in another no one could? Could you not yourself succeed in a certain way?

'In what way?

'It is not difficult; it is often done, and in a short time. Take a mirror and turn it round on all sides: in an instant you will have made the sun and stars, the earth, yourself, the animals and plants, works of art, and all we mentioned.

'Yes, the images, the appearances, but not the real things.

'Very well; you comprehend my opinion. The painter is a workman of this class, is he not?

'Certainly.

'You will tell me that he makes nothing real, although he makes a bed in a certain way?

'Yes; but it is only an appearance, an image.

'And the carpenter, did you not allow that the bed which he made was not the Idea which we call the essence of the bed, the real bed, but only a certain bed?

'I said so, indeed.

'If, then, he does not make the Idea of the bed, he makes nothing real, but only something which represents that which really exists. And, if any one maintain that the carpenter's work has a real existence he will be in error.'*

In the *Timæus*, perhaps the most purely expository of all his works, and unquestionably one of the latest, Plato takes a totally different view of the creation of the world. God is there said, not to create types (Ideas); but, these types having existed from all eternity, God in fashioning Chaos fashioned it after the model of these Ideas. In this view there is no participation in the *nature* of Ideas, but only a participation in their *form*.

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* *Repub.* x. 467–8, ed. Bekker.

Whichever hypothesis he adopted (and Plato did not much care for either), this conception of Heaven and Earth as two different regions, is completed by the conception of the double nature of the soul; or rather, of two souls: one Rational and the other Sensitive. These two souls are closely connected, as the two regions of Ideas and Phenomena are connected. Neither of them is superfluous; neither of them, in a human sense, sufficient: they complete each other. The Sensitive soul awakens the reminiscences of the Rational soul; and the Rational soul, by detecting the One in the Many, preserves Man from the scepticism inevitably resulting from mere sense-knowledge.

Thus did Plato resume in himself all the conflicting tendencies of his age; thus did he accept each portion of the truth supposed to be discovered by his predecessors, and reconcile these portions in one general tendency. In that vast system, all scepticism and all faith found acceptance: the scepticism was corrected, the faith was propped up by more solid arguments. He admitted, with the sceptics, the imperfection of all sense-knowledge; but, though imperfect, he declared it not worthless: it is no more like the Truth than phenomena are like Ideas; but, as phenomena are in some sort modelled after Ideas, and do, therefore, in some dim way, represent Ideas, so does sense-knowledge lead the patient thinker to something like the Truth; it awakens in him reminiscence of the Truth. As Ritter says, 'He shows, in detail, that in the world of sense there is no perfect likeness, but that an object which at one time appears like, is at another thought to be unlike, and is, therefore, defective in completeness of resemblance, and has at most but a tendency thereto. The same is the case with the Beautiful, the Good, the Just, the Holy, and with all that really *is*; in the sensible world there is nothing exactly resembling them, neither similar nor dissimilar; all, however, that possesses any degree of correspondence with these true species of being is perceived by us through the senses, and thereby reminds us of what truly is. From this it is clear that he had previously seen it somewhere, or been conscious of it, and, as this could not have been in the present, it must have been in some earlier state of existence. In this respect there is a close connection between this doctrine and the view of sensible objects, which represents them as mere copies or resemblances of the super-sensible truth; for, even in perception, a feeling arises upon the mind, that all we see or hear is very far from reaching to a likeness to that which is the true being and the absolutely like; but that, striving to attain, it falls short of perfect resemblance; and consequently, the impressions of the sense are mere tokens of the eternal ideas, whose similitude they bear, and of which they are copies.'

The monotheistic tendency of Plato's speculations has been one great source of the veneration in which his works have been held by Christian thinkers. In this there has been exaggeration, and injustice to his predecessors. We have already noticed in Xenophanes an energetic protest against the polytheistic conceptions of his day, a protest far more sweeping than is to be found in Plato, who was, to speak candidly, somewhat of a trimmer, and who carefully abstained from any open disregard of the popular creed. But not only Xenophanes, all the pre-Socratic thinkers were more or less consciously at variance with the popular theology; and the whole current of speculation set towards monotheism, in Greece, as in the East. Although, therefore, we find in Plato a tacit admission of the popular polytheism, we also find his speculations pointing unmistakably towards monotheism; the existence of the inferior Gods was not impugned, but they were subordinated to the Supreme.

In the same way as Plato sought to detect the One amidst the Multiplicity of material phenomena, and, having detected it, declared it to be the real essence of matter, so also did he seek to detect the One amidst the Multiplicity of Ideas, and, having detected it, declared it to be the Good. What Ideas were to Phenomena, God was to Ideas: the widest generalization. God (the Good) was thus, the One Being comprising within himself all other Beings, the ἓν καὶ πολλά, the Cause of all things, celestial and terrestrial: the supreme Idea. Whatever view we take of the Platonic cosmology—whether God created Ideas, or whether he only fashioned unformed matter after the model of Ideas—we are equally led to the conviction, that God represented the supreme Idea of all Existence; the great Intelligence, source of all other Intelligences; the Sun whose light illumined creation. God is perfect, ever the same, without envy, wishing nothing but good: for, although a clear knowledge of God is impossible to mortals, an approximation to that knowledge is possible: we cannot know what he is, we can only know what he is like. He must be good, because self-sufficing; and the world is good, because he made it. Why did he make it? God made the world because he was free from envy, and wished that all things should resemble him as much as possible; he therefore persuaded Necessity to become stable, harmonious, and fashioned according to Excellence. Yes, persuaded is Plato's word; for there were two eternal Principles, Intelligence and Necessity, and from the mixture of these the world was made; but Intelligence persuaded Necessity to be fashioned according to Excellence.[*] He arranged chaos into Beauty. But, as there is nothing beautiful but Intelligence, and as there is no Intelligence without a Soul, he placed a Soul into the body of the World, and made the World an animal.

Plato's proof of the world being an animal is too curious a specimen of his analogical reasoning to be passed over. There is warmth in the human being; there is warmth also in the world; the human being is composed of various elements, and is therefore called a body; the world is also composed of various elements, and is therefore a body; and, as our bodies have souls, the body of the world must have a soul; and that soul stands in the same relation to our souls, as the warmth of the world stands to our warmth.[†] Having thus argued the world to be an animal, it was but natural he should conceive that animal as resembling its creator, and human beings as resembling the universal animal, τὸ πᾶν ξῶον. As soon as the World, that image of the eternal Gods, as soon as that vast Animal began to move, live, and think, God looked upon his work, and was glad.*

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[*] Μεμιγμένη γὰρ οὖν ἡ τοῦδε τοῦ κόσμου γένεσις ἐξ ἀνάγκης τε καὶ νοῦ συστάσεως ἐγεννήθη, νοῦ δὲ ἀνάγκης ἄρχοντος τῷ πείθειν αὐτὴν τῶν γιγνομένων τὰ πλεῖστα ἐπὶ τὸ βέλτιστον ἄγειν.—*Timæus*, p. 56.

[†] *Philebus*, pp. 170-1.

But, although God in his goodness would have made nothing evil, he could not prevent the existence of it. Various disputes have been warmly carried on by scholars, respecting the nature of this Evil which Plato was forced to admit. Some have conceived it nothing less than the Manichæan doctrine. Thus much we may say: the notion of an antagonist principle is inseparable from every religious formula: as God can only be Good, and as Evil does certainly exist, it must exist independently of him; it must be eternal. Plato cut the matter very short by his logical principle,—that since there was a Good, there must necessarily be the contrary of Good, namely, Evil. If Evil exists, *how* does it exist, and *where*? It cannot find place in the celestial region of Ideas. It must therefore necessarily dwell in the terrestrial region of phenomena: its home is the world; it is banished from heaven. And is not this logical? What is the world of phenomena but an imperfect copy of the world of Ideas, and how can the imperfect be the purely Good? When ideas are 'realized,' as the Pantheists would say, when Ideas, pure immutable essences, are clothed in material forms, or when matter is fashioned after the model of those Ideas, what can result but imperfections? The Ideas *are* not in this world: they are only in a state of *becoming*, ὄντως ὄντα, not γιγνόμενα. Phenomena are in their very nature imperfect: they are perpetually striving to exist as realities. In their constitution there is *something* of the divine: an image of the Idea, and some participation in it; but more of the primeval chaos.

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* Ὡς δὲ κινηθὲν αὐτὸ καὶ ζῶν ἐνενόησε τῶν ἀιδίων θεῶν γεγονὸς ἄγαλμα ὁ γεννήσας πατὴρ, ἠγάσθη τε καὶ εὐφρανθεὶς ἔτι δὴ μᾶλλον ὅμοιον πρὸς τὸ παράδειγμα ἐπενόησεν ἀπεργάσασθαι.—*Timæus*, p. 36.

Those, therefore, who say that Plato thought that 'Evil was inherent in matter,' though expressing themselves loosely, express themselves on the whole correctly. Matter was the great Necessity which Intelligence fashioned. Because it was Necessity and unintelligent, it was Evil, for Intelligence alone can be good.*

Now, as this world of phenomena is the region where Evil dwells, we must use our utmost endeavours to escape from it. And how escape? By suicide?—No. By leading the life of the Gods; and every Platonist knows that the life of the Gods consists in the eternal contemplation of Truth, of Ideas. Thus, as on every side, are we forced to encounter Dialectics as the sole salvation for man.

From the above explanation of the nature of Evil, it will be seen that there is no contradiction in Plato's saying, that the quantity of Evil in this life exceeded that of the Good; it exceeds it in the proportion that phenomena exceed noumena,—that matter exceeds Ideas.

But although Evil be a necessary part of the world, it is in constant struggle with Good. What is this but the struggle of *Becoming*? And man is endowed with Free Will and Intelligence: he may therefore choose between Good and Evil.† And according to his choice will his future life be regulated. Metempsychosis was a doctrine Plato borrowed from Pythagoras; and in that doctrine he could find arguments for the enforcement of a sage and virtuous life, which no other afforded at that epoch.

We have said nothing of the arguments whereby Plato proves the existence of God; for we have been forced to pass over many details: but we cannot close this chapter without alluding to an argument often used in modern times, and seldom suspected to have had so ancient an upholder—God is proved to exist by the very feeling of affinity to his nature which stirs within our souls.

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* In the *Laws*, x. pp. 201–2, he curiously distinguished the νοῦς from the ψυχή in this manner. The ψυχή (vital principle) is the self-moving principle; but, inasmuch as it is sometimes moved to *bad* as well as to *good* (τῶν τε ἀγαθῶν αἰτίαν εἶναι ψυχὴν καὶ τῶν κακῶν), it was necessary to have some other principle which should determine its direction. He therefore makes νοῦς (intelligence) the principle which determines the soul (whether the soul of the world or of man, it is the same) to good; and ἄνοια (ignorance—want of *nous*) which determines it to evil.

† *Laws*, x. p. 217.

Such opinions as those above set down were certainly expressed by Plato at different times: but we again warn the reader against supposing them to have been his constant views. They are taken from works written at wide intervals, and bearing considerable difference of opinion; and in those very works there are occasional glimpses of a startling doctrine, namely, that man is but the plaything of God, who alternately governs and forsakes the world. The first clause of this sentence seems derived from Heraclitus, who said, that 'making worlds was the sport of Demiurgos.' Plato's words are these: *ἄνθρωπον δὲ θεοῦ τι παιγνίον εἶναι μεμήχανημένον*: and this is said to be man's greatest excellence.* The second clause is formally expressed by Plato thus: 'God,' he says, 'alternately governs and forsakes the world; when he governs it, things go on well: it is the age of gold; when he forsakes it, the world suddenly turns round in a contrary orbit—a fearful crisis takes place, all things are disordered, mundane existence is totally disarranged, and only after some time do things settle down to a sort of order though of a very imperfect kind.'† The wisest word he has uttered on Theology is one rarely quoted, and not likely to be acceptable to theologians, namely, that we know nothing about the Gods, 'the speculations about the Gods are simply speculations about the opinions men form about the Gods.'—*Cratylus*, p. 401.

So much has been written and talked in modern times of *τὸ καλόν*, 'the Beautiful,' as conceived by Plato, and this by persons who never read a line of his works, that we must devote a few sentences to it.

The bond which unites the human to the divine is Love. And Love is the longing of the Soul for Beauty; the inextinguishable desire which like feels for like, which the

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Laws, vii. p. 32.

† *Politicus*, p. 280.

divinity within us feels for the divinity revealed to us in Beauty. This is the celebrated Platonic Love, which, from having originally meant a communion of two souls, and that in a rigidly dialectical sense, has been degraded to the expression of maudlin sentiment between the sexes. Platonic love meant ideal sympathy; it now means the love of a sentimental young gentleman for a woman he cannot or will not marry.

But what is Beauty? Not the mere flattery of the senses. It does not consist in harmonious outlines and resplendent colours: these are but the indications of it. Beauty is Truth. It is the radiant image of that which was most splendid in the world of Ideas. Listen to Plato's description of it in the *Phædrus*:—'For, as we have already said, every human soul has actually seen the Real Existences, or it would not have come into a human shape. But it is not easy for all of them to call to mind what they then saw; those, especially, which saw that region for a short time only, and those which, having fallen to the earth, were so unfortunate as to be turned to injustice, and consequent oblivion of the sacred things which were seen by them in their prior state. Few, therefore, remain who are adequate to the recollection of those things. These few, when they see here any image or resemblance of the things which are there, receive a shock like a thunderbolt, and are in a manner taken *out of themselves*; but, from deficiency of comprehension, they know not what it is which so affects them. Now, the likenesses which exist there of Justice and Temperance, and the other things which the soul honours, do not possess any splendour; and a few persons only, with great difficulty, by the aid of dull, blunt, material organs, perceive the terrestrial likenesses of those qualities, and recognize them. But Beauty was not only most splendid when it was seen by us forming part of the heavenly possession or choir, but here also the likeness of it comes to us through the most acute and clear of our senses, that of sight, and with a splendour which no other of the terrestrial images of supercelestial Existences possess. They, then, who are not fresh from heaven, or who have been corrupted, are not vehemently impelled towards that Beauty which is aloft when they see that upon earth which is called by its name; they do not, therefore, venerate and worship it, but give themselves up to physical pleasure after the manner of a quadruped. But they who are fresh from those divine objects of contemplation, and who have formerly contemplated them much, when they see a godlike countenance or form, in which celestial beauty is imaged and well imitated, are first struck with a holy awe, and then, approaching, venerate this beautiful object as a god, and, if they were not afraid of the reputation of too raving a madness, would erect altars, and perform sacrifices to it.

'And the warmth and genial influence derived from the atmosphere which beauty generates around itself, entering through the eyes, softens and liquefies the inveterate induration, which coats and covers up the parts in the vicinity of the wings, and prevents them from growing. This being melted, the wings begin to germinate and increase, and this, like the growing of the teeth, produces an itching and irritation which disturbs the whole frame of the soul. When, therefore, by the contemplation of the beautiful object, the induration is softened and the wings begin to shoot, the soul is relieved from its pain and rejoices; but when that object is absent, the liquefied substance hardens again, and closes up the young shoots of the wings, which consequently boil up and throb, and throw the soul into a state of turbulence and rage, and will neither allow it to sleep nor remain at rest, until it can again see the beautiful object and be relieved. For this reason it never willingly leaves that object, but for its sake deserts parents, and brothers, and friends, and neglects its patrimony, and despises all established usages on which it valued itself before. And this affection is Love.'

The reader is doubtless by this time familiar enough with the Platonic philosophy to appreciate this passage. He will see the dialectical meaning of this poetical myth. He will comprehend, also, that the Platonic Love is naturally more appropriate between two men, master and pupil, than between the two sexes; because it is then purer, and less disturbed by other feelings.

Beauty is the most vivid image of Truth: it is divinity in its most perceptible form. But what is the Good? The Good, τὸ ἀγαθόν, is God, but God considered in the abstract. Truth, Beauty, Justice, are all aspects of the Deity; Goodness is his nature. The Good is therefore incapable of being perceived; it can only be known in reflection. In the same manner as the sun is the cause of sight, and also the cause of the objects of sight growing and being produced, so also the Good is the cause of science, and the cause of being to whatever is the object of science: and, as the sun itself is not sight, nor the object of sight, but presides over both; so also the Good is not science, nor the object of science, but is superior to both, for they are not the Good, but goodly.

Plato was a Socratist. But his speculations on Ideas, Reminiscence, Metempsychosis, God, etc. were not learned from Socrates, who occupied himself almost exclusively with Ethical topics; and it is in Ethics, therefore, that we may expect to find Plato most resembling him.

Plato's ethical opinions are deductions from certain abstract logical premises, not from investigations into human nature. Thus, when 'engaged with the discussion of particular sciences, he resolves them into the science of Good; when engaged with the particular virtues, he resolves them into the virtue of Science.' * Everywhere the Good and the True are convertible terms, and Virtue is the same as Science. There is, moreover, considerable contradiction in his various works on this, as on other points. In one dialogue (*Timæus*) he advocates Free Will; in another (*Hippias Minor*), Fatalism. Sometimes vice is involuntary, at other times voluntary: sometimes, indeed generally, vice is nothing but ignorance; elsewhere, as we have shown, vice is said to be partly ignorance and partly incontinence. Virtue is said to be Science; yet

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* ARCHER BUTLER, *Lectures*, ii. 61.

Knowledge alone does not constitute Happiness, nor can Virtue be taught.

Although many passages may be quoted which contain pure and profound moral views, we cannot but regard as chimerical any attempt to deduce from his works an ethical system. All that can safely be relied on is general views, such, for instance, as his subordination of Ethics to Dialectics. M. De Gerando well observes, 'he did not found his ethics on a principle of obligation, on the definition of duty, but on the tendency to perfection.'

In Plato's Ethics the passions are entirely set aside; they are regarded as disturbances in the moral economy. Virtue is purely a matter of intelligence; and the intellect has therefore not only a regulative office, but the supreme direction of all action.* Now, as Chamfort admirably said, 'the Philosopher who would set aside the passions resembles a Chemist who would extinguish his fire.' We are all aware that it is very common 'to know the right, and yet the wrong pursue;' that the passions not only disturb the regulative action of Reason, but positively triumph over it; and that morals are our *mores*, our *habits*, as much as our beliefs.

The Ethics of Plato might suit the inhabitants of another world; they are useless to the inhabitants of this. His Politics are his Ethics applied to the State, and labour under the same errors.

The *Republic* is unquestionably one of the most interesting of his works; and so slow has been the progress of social science, compared with every other science, that many of the views Plato has there put forth are still entertained by very serious thinkers; whereas his views on psychology seldom, his views on physics never find a defender.

The weakness of man is the cause why States are formed. As he cannot suffice to himself, he must live in society. This society should be an image of man himself. The faculties which belong to him must find a proper field of activity in society; and this vast union of intellects should form but one intelligence. Thus man's virtues are, 1, φρόνησις, wisdom; 2, ἀνδρεία, fortitude; 3, σωφροσύνη, temperance; 4, δικαιοσύνη, justice. The State, therefore, must have its Rulers, the philosophers, who will represent wisdom; its Soldiers, who will represent fortitude; its Craftsmen and burghers, who will represent temperance. Justice is a quality which must be shared by all classes, as lying at the root of all virtuous action.

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* We cannot interrupt our exposition with any examples; they are too numerous. But we may remind the student of that passage in the *Gorgias* respecting the misery of the unjust man, in which Plato endeavours to prove that he who does an injury suffers more than he who endures it.

In wisdom and justice we have the alpha and omega of Plato's doctrine: justice is wisdom in act. The office of the Rulers is therefore to ordain such laws as will eventually prevent all injustice in the State. Their first care will be to instil into the minds of the citizens just notions respecting the Deity. All those who attribute to the Deity the passions and imperfections of men must be banished: hence the famous banishment of the poets, of which so much has been said. This law, pushed to its rigorous conclusions, is the law of fanaticism. Whatever the Rulers believed respecting Religion, was to be the Religion of the State. Strange that a pupil of Socrates should have advocated a law, the operation of which caused his master's condemnation! But there are other causes for the banishment of the poets besides their fictions respecting the Gods. They enervate the soul by pictures of immoderate desires; they give imitations of the vices and follies of men; they overstep the limits of that moderation which alone can balance the soul. Even the musicians are to be banished; those at least who are plaintive and harmonious. Only the Phrygian and the Dorian music can be admitted; the one impetuous and warlike, the other calm.

There is a germ of Stoicism in Plato, and that germ is here seen developed. A measured equability of mind was his ideal of human happiness, and anything which interfered with it was denounced. Poetry and music interfered with this equability, and so did conjugal love. As the State could not subsist without children, children must be begotten. But parents are foolishly fond; they are avaricious for their children; ambitious for them. Husbands are also foolishly fond. To prevent these disturbances of good order, Plato ordains community of wives, and interdicts parentage. Women are to be chosen for marriage as brood-mares are chosen. The violent women to be assorted to the mild men; the mild to be assorted to violent men. But the children belong to the State. They are, therefore, to be consigned to the State Nurses, who will superintend their early education. Because children manifest different capacities, Plato thought with St. Simon, that each citizen should be ranked according to his capacity, the State undertaking to decide to which class the young man should belong. But, if domestic life is thus at a blow sacrificed to the public good, do not imagine that women will lose their occupations. No: women must share with men the toils of war and agriculture. The female dog guards sheep as well as the male; why should not the woman guard the State?* And, as some few women manifest a capacity for philosophy, those few will share with men the government. With community of wives and children, it is natural that community of property should be joined. Property is the great disturber of social life; it engenders crimes and luxuries which are scarcely better than crimes. Property, therefore, must be abolished. The State alone has riches.

In one word, the Family, no less than the individual, is sacrificed to the State; the State itself being an Abstraction. Like the Utopists of modern days, Plato has developed an *à priori* theory of what the State should be, and by this theory all human feelings are to be neglected; instead of developing a theory *à posteriori*, i. e. from an investigation into the nature of human wants and feelings.†

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* This is Plato's own illustration.

† In the *Laws*, many of the political and social notions are modified; but the general theory is the same.

• This is all logically deduced by him. He makes a Republic which has philosophers for its rulers, consequently abstractions for its laws; philosophy in his conception dealing only with abstractions. Believing in no higher reality than Universals, of which individual things were but vanishing appearances, believing in the perturbing and disturbing influence of Sense and Passion, the philosopher necessarily strove to suppress all individuality and to stifle all passion. Aristotle saw where the initial weakness lay—in the disregard of the individual and his needs.

I here close this necessarily imperfect account of one of the most influential thinkers that has ever lived; and in closing it I can only indicate in a few words the general sources of that influence over and above the genius of the writer which has charmed even those who have disregarded his opinions. His works are full of speculative yeast: he touches on all subjects, and agitates whatever he touches. The sceptical play of his intellect moves freely amid the most arduous and subtle problems. He starts fresh views, and irritates the mind to research. His unresting activity communicates itself to the reader. His daring ingenuity, which never stops at an absurdity, and sometimes reaches a plausibility, if not a truth, captivated students; his lofty views and splendid reputation made them eager to find his plausibilities true. Over Christian philosophy he exercised a vast and acknowledged influence, and over metaphysical philosophy scarcely less. He gave a criterion to the Subjective Method, which remained unmodified until Descartes. If, with all his genius and with all his activity, he failed to establish any one important truth, and failed even to enrich the world with many minor truths; if, in short, the only direct result of all his efforts is that of making men occasionally conscious that they have no tenable grounds for their opinions, the reason of this is, I believe, that on the Subjective Method no permanent truth can be established.

SEVENTH EPOCH.

Philosophy for the first time assumes the systematic form of a body of doctrine, all its conclusions respecting existences being referred to principles of Logic—The criterion stated by Plato is systematized and applied by Aristotle—A method of proof takes its place among the chief instruments of thought.

CHAPTER I.

LIFE OF ARISTOTLE.

STAGIRA—which, Boeckh says, should be written Stageiros—was a town in Northern Greece, on the western coast of the Strymonic Gulf (now called the Gulf of Contezza) just where the coast begins to take a southerly bend. Its situation has been compared with the southern part of the Bay of Naples. Immediately south, a promontory, like the Punta della Campanella, and nearly in the same latitude, runs out in an easterly direction, thus effectually screening the little town and its harbour, Capros, from the stormy squalls of the Ægean. Stagira is said to resemble Sorrento, not only in the general disposition of its coast lines, but also in the terraced windings of its multitudinous orange and lemon groves.*

In this picturesque seaport, Aristotle was born, B.C. 384, that is, exactly one century after the birth of Herodotus;

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* BLAKESLEY, *Life of Aristotle*, p. 12.

one century before the foundation of the Alexandrian library, and the execution of the Septuagint version of the Scriptures; and two centuries before the death of Philopœmen, 'the last of the Greeks,' when the Achæan league dissolved before the Roman power, and Greece merged her splendid existence in the dependence of a Roman province.

His father, Nicomachus, was a physician and an Asclepiad; but whether he had any better claim to the honour of descent from Æsculapius than so many others who usurped the title,* or simply belonged to the famous guild, cannot now be determined. It is certain that he was a physician of repute, attached to Amyntas II., the father of the Macedonian Philip.

It is unknown how long he remained at Stagira before accompanying his father to the court of Amyntas, at Pella, where he learned to know and ingratiate himself with Philip, who was hereafter to befriend him. Everything at this epoch is conjecture, and conjecture may amuse, but cannot instruct.

At the age of seventeen he lost his father. This is the next isolated fact which has been recorded, and it is important. He thus became his own master, with the command of a large fortune; a perilous condition to most youths; the temptation to squander his fortune in frivolous dissipation must have been great, and could only be withstood by an unusual seriousness of mind, or unusual felicity in his social connections. So plausible is the supposition that a youth thus circumstanced will be ruined, that idle gossip, which always flits about a celebrated name, invented a story of his having wasted his means, and having been reduced to sell drugs for a subsistence; a story which, however, found refutation even among the ancients, and is wholly irreconcilable with the known facts of his subsequent career.

He was young, ardent, ambitious, rich. Athens, the glory of the world, though her political sun was setting, the luminous centre of Philosophy and Art, beckoned to him, as Rome and Florence beckon to the students of our day. Plato taught there, and might admit him to the groves of the Academy. To listen to this 'old man eloquent,' was a rare attraction, and naturally it drew him to Athens. Arrived there, he found that Plato was absent. Awaiting the great teacher's return, he qualified himself for discipleship by three years of arduous study. Had he squandered his wealth in dissipation, as the babblers reported, he could not have collected the treasure of books which he is known to have bought; for in those days it was almost as costly to create a library of books as in our own to create a gallery of pictures.* To collect books and to read them are not always the same thing. With him they were one; and Plato, alluding to the extraordinary passion he displayed, called him 'the reader.' His writings show how diligently he had studied all accessible literature; and it is to his punctilious quotation of his predecessors that we are greatly indebted for the preservation of many fragments of ancient thought. So little justice is there in Bacon's sarcasm, that like an Eastern despot he strangled his rivals in order to reign peaceably.†

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* See HARLESS: *De Medicis Veteribus 'Asclepiades' dictis*, a work only known to me at second hand.

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* According to Gellius, he paid for the works of Speusippus alone three Attic talents, that is about 700*l*. of our money, a sum not to be spared out of the profits of drug-selling unless by a merchant prince. In our own days 1,000*l*. has been paid for a rare edition of an Italian poet; but *that* was merely the avidity of a collector's furor backed by the wealth of an English nobleman. Curious details on the price of books in the Middle Ages may be read in Muratori: *Dissertazione sopra l'antichità Italiane*, Diss. XLIII. Compare also Heeren: *Geschichte der Classischen Litteratur im Mittelalter*, Werke, 1822, IV. In our days of cheap literature—cheap, because we have cheap paper, and that because we wear linen instead of woollen clothes—these details seem to render the darkness of the dark ages more intelligible.

† Aristotle's precepts, no less than his practice, answers this accusation. See *Metaph.* II. 1, 995; *De Cœlo*, I. 10, 279; and *De Anima*, I. 1. Bacon simply echoed Patrizio, whose enmity was virulent and avowed, and who declares that one cause of this hatred was the abuse which Aristotle heaps on the writers from whom his best ideas are stolen. Patritii: *Discussionum Peripateticarum tomi quatuor*, Bâle, 1581, from which learned but untrustworthy work some moderns have largely drawn. The first volume contains a life and a list of the extant

When Aristotle came to Athens the splendour of her life was fast departing, and near at hand was the towering greatness of Macedon, so soon to overshadow her on the plains of Chæroneia. The sun was setting on the Age of Pericles, and was rising on the Age of Alexander. For sixty years Pericles had ceased to thunder from the bema; had ceased to communicate his agitating stimulus to art and politics; had ceased to adorn the beautiful city with his munificence and taste. Sophocles and Euripides were gone; and the grand and pathetic drama they had unfolded to applauding thousands, had fallen into the hands of Chæremon, Cleophon, and Theodectes (the last the friend of Aristotle), whose efforts to make rhetoric supply the place of poetry pointed unmistakably towards decline. Aristophanes no longer laughed at the absurdities, and scourged the corruptions of his time, in riotous and reckless farces, which too often wilfully misrepresented persons and ideas essentially wise and noble. No great prose writer except Xenophon remained; not one poet of eminence.

But if a sunset, it was still a glorious sunset, with some

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works, with an account of all the Peripatetics. In the third book there is a valuable collection of the passages in which *A.* refers to his own writings; a collection subsequently used and expanded by RITTER, but without the acknowledgment due in such a case. The second volume gives an exposition of the points of *agreement* between the doctrines of *A.* and Plato, and the older writers. In the third volume the points of *difference* are noted. In the preface he complains of the insults to philosophers (p. 291–2), and sarcastically adds that there is no mention of HIPPOCRATES. (Some moderns, coupling this supposed silence with the silence of THUCYDIDES, have argued that Hippocrates lived after Aristotle; but the fact is that Hippocrates *is* mentioned, and in the *Politics* there is a sketch of his views on climate.) In the fourth volume PATRIZIO gives full expression to his antagonism. GIORDANO BRUNO, in spite of his own opposition to the peripatetic system, speaks with measureless contempt of PATRIZIO, as 'un sterco di pedante Italiano che ha imbrattati tanti quinterni con le sue discussione peripatetiche,' and vows that he has not understood the Stagirite, but only read and reread him, 'cucito, scucito e conferito con mill' altri greci autori amici e nemici di quello, et al fine fatta una grandissima fatica non sola senza profitto alcuno, ma etiam con un grandissimo sproposito.' *De la Causa Principio et Uno* (*Opere Ital.*, Leipzig, 1830), I. 250. PATRIZIO had many admirers and imitators; a notable one is BASSO, *Philos. Naturalis adversus Aristotelem*, libri xii. Elzevir, 1649. I have not had the courage to extend my wanderings further through this rubbish of denunciation and criticism heaped up by the iconoclasts.

splendour of the after-glow. Great memories swelled ambitious minds. Powerful vibrations were still felt from Salamis, Marathon, and Platæa. Isocrates upheld the renown of Athenian eloquence; and the greater Demosthenes was preparing for his matchless displays. Praxiteles was at work upon statues, the very copies of which were for centuries to be the despair of artists. Scopas, the sculptor of the immortal Niobe and the Venus of Milo, had enchanted the Athenians with his Furies. Diogenes, with drastic energy, despised the citizens from his tub. The schools were crowded with listeners to many teachers. In every direction there was intellectual activity and social ferment. A young, keen intellect would find there abundant stimulus.

As years ripened his intelligence, and free intercourse with eminent men procured him the advantages and opportunity of display, Aristotle gradually won for himself a foremost position. He came there a raw ambitious youth, not only with the disadvantages of inexperience, but with those disadvantages of accent and manner which, in the eyes of supercilious Athenians—the Frenchmen of antiquity—made him seem almost a barbarian. These, however, he soon modified. One fact recorded of him—that he was somewhat given to foppery in costume—implies an eager sensitiveness to approbation, which would have directed his attention to anything provincial in his air. Keen, witty, logical, and learned, he was a brilliant talker, and in that city of talkers could hold his own with the best; not even refraining from controversy with his great master. Without pretending to decide the much vexed question of his ingratitude towards Plato, I must express my own disbelief in the accusation; although it is very credible, and by no means derogatory to him, that, differing from his master in cast of mind, as well as on certain fundamental points of philosophy, he should often, during the seventeen years they were together, have been seduced into warm, and sometimes irritating, discussion with one whom, on the whole, he considered as the noblest of thinkers. All opposition is apt to be construed as an offence; and if Aristotle's criticisms and allusions to Plato are not always remarkable for their judicial calmness, they have never any approach to irreverence. Often in antagonism—how could this sincerely be avoided?—he is never in hostility to Plato. Indeed, in the *Ethics*, he complains of the necessity of attacking doctrines held by 'dear friends,' adding—'It is our duty to slay our own flesh and blood where the cause of Truth is at stake, especially as we are philosophers; loving both, it is our sacred duty to give the preference to Truth.' It is a timidity unworthy of a noble mind to shrink from intellectual opposition, as an offence against friendship, and to suppress convictions for fear of mis-construction.

Aristotle remained twenty years at Athens. During seventeen of these years, Plato was first his master, and then his friend. His health was, like that of most ardent brain-workers, delicate. He was short and slender in person; he had small eyes, and an affected lisp. Somewhat given to sarcasm in conversation, he made, of course, many enemies. On hearing that some one had vituperated him in his absence he humorously said, 'If he pleases, he may beat me too—*in my absence.*' His heart was kind, as was manifest in certain acts, and is expressed in this saying, 'He who has many friends has no friends,' which profoundly touches the very core of the subject, and may be paired off with this other saying of his, 'A friend is one soul in two bodies.' When asked how we should behave towards friends, he said, 'As we should wish them to behave towards us.'

Advancing age and development, no less than the decidedly scientific bias impressed upon his studies, necessarily caused him to take up an independent position with respect to Plato, who had little taste for physical science, and whose intellect naturally withdrew from those very subjects to which his young rival was, by nature and early bias, strongly determined. Without absolutely opening a rival school, Aristotle gradually gathered round him a circle of admirers, and began, during the last years of his Athenian residence, to give lectures.*

Among the listeners was Hermias, the tyrant (or ruler) of Atarneus, and to him, by invitation, Aristotle went, on quitting Athens, after Plato's death. His companion on this journey was Xenocrates, the best loved of Plato's disciples. What was the object of their visit? It has been conjectured that Hermias invited them to frame a political constitution. The scheme, if such it were, was frustrated by the assassination of Hermias, and the fall of Atarneus into Persian hands. The two philosophers escaped to Mytilene, carrying with them Pythias, the adopted daughter of their friend and patron; and Aristotle subsequently married her, out of compassion for her defenceless position, and respect for the memory of his murdered friend. Worthy of special reprobation, as indicating the peculiar infelicity with which calumny often selects its points of attack, is the fact that his friendship for Hermias, and generosity toward Pythias, furnished the cruel thoughtlessness of scandal with its bitterest accusations. Here once more may be seen how in this life men are punished for their virtues; as a set-off, perhaps, to the rewards which often crown their vices. So little reliance can be placed on these ancient scandals, that some call Pythias the daughter, and others the concubine, of Hermias. It is, perhaps, a slight objection to both these assertions that Hermias was an eunuch.

To the memory of Hermias he raised a statue at Delphi, with an inscription; on which act was founded a charge of impiety. Nor was the memory of Pythias, who died after giving birth to a daughter, less honoured by the grateful husband. In his will he enjoined that her bones should be laid beside his own.

He had not long been at Mytilene before he received from Philip of Macedon the magnificent offer to undertake the charge of the young Alexander. From this it is evident that his reputation, while at Athens, must have been considerable. To Macedon he went. His princely pupil was then fourteen: young enough to receive a determining bias, old enough to revere the intellectual force which impressed that bias. The respectful love which men of fine intellect and generous sympathies so gladly give to their first instructors is well expressed in the saying of Alexander, that he honoured Aristotle no less than his own father; for if to the one he owed life, to the other he owed that which made life valuable.

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* The story of his having practised medicine at this time, which is founded on his interest in that art, is refuted by his express statement in the work *De Divinatione*, I. 463, that in medicine he was only one of the laity, though accustomed to philosophize upon it.

That the tutor and pupil might promenade in the cool shade during the hours of instruction, Philip caused a gymnasium to be built in a grove; and even so late as the days of Plutarch, the traveller might still see the shady walks (περίπατοι) with their stone seats for resting-places. Aristotle remained seven years in Macedon; but only four of these were given to the education of the prince, who at eighteen became Regent. Thus while Demosthenes was thundering against the ambition of Philip, who claimed for Macedon the hegemony of Greece, Aristotle was stimulating and enlarging the mind of Alexander, who was soon to carry the silver shields of Macedon from Syria to Egypt, from Candahar to the Indus, and from the Indus to the Persian Gulf. Popular fiction makes the great teacher accompany the great conqueror on this splendid expedition; and one regrets that this is a fiction. There was, indeed, other work for Aristotle to do, which the life of camps would hardly have advanced. Still the expedition would have been a vast experience for him; and his observing mind could not have beheld that varied, shifting panorama without great result. To have passed with the conquering hosts to Tyre; to have witnessed the foundation of Alexandria; to have lived through the agitations of the day at Arbela, when the countless hosts of Darius were assembled on the plain beneath the Koordish mountains, and there were slaughtered like sheep; to have witnessed the successive subjection of Babylon and Susa, of Persepolis and Ecbatana; and finally to see the young Dionysus, maddened with the insolence of success, cut off suddenly in his youth; these were grand experiences which one regrets to think were lost to Aristotle.

Although, as I said, the relation between master and pupil lasted only four years, the relation of friendly counsel on the one side, and magnificent gratitude on the other, continued. Had it not been for Alexander's princely aid, Aristotle's enormous collections could not have been made. The aid is unexampled. It is said, but not on trustworthy authority, that Alexander presented him with the sum of eight hundred talents, which represents nearly two hundred thousand pounds of our money. Few critical readers will believe that; and Schneider, in his edition of the *Historia Animalium*, quotes with approbation the estimate of a predecessor, who calculates that the whole revenue of Macedon would not have furnished such a sum. Still if we make liberal deductions, and strike off two-thirds of this sum, it leaves a splendid surplus. The enormity of the exaggeration points to an enormous sum. Add to this the statement of Pliny, that Alexander gave orders to his hunters, gamekeepers, fishermen, and bird-catchers to furnish the philosopher with all the material he might desire—an order which at once placed several thousand men at his service.* But at the same time remember it is Pliny who makes the statement, and for untrustworthiness of statement he cannot easily be surpassed; so that even here an immense exaggeration may be suspected; and to sum up, remember that although Aristotle must have had a large collection of materials before he could have written his work on animals, Humboldt declares that there is no trace in that work of any acquaintance[*] with animals first known through Alexander's expedition.

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* Alexandro Magno rege inflammato cupidine animalium naturas noscendi, delegataque hac commentatione Aristoteli, summo in omni doctrina viro, aliquot millia hominum in totius Asiæ Græciæque tractu parere jussa, omnium quos venatus, aucupia, piscatusque alebant; quibusque vivaria, armenta, alvearia, piscinæ, aviaria in cura erant; ne quid usquam genitum ignoraretur ab eo.'—PLINY: *Hist. Nat.*, VIII. 16.

After an absence of twelve years, B.C. 335, Aristotle reappeared in Athens. He found the Academy already occupied by his friend Xenocrates; so that some other place had to be sought where he might open a school. This he found at the Lyceum, a gymnasium in the vicinity of the temple of Apollo Lykeios, founded by Pisistratus, and embellished by Pericles. It was the most splendid of the Athenian gymnasia, consisting of a mass of edifices surrounded with gardens, avenues, and a sacred grove. It had its spacious courts with porticos, theatres for professors, covered promenades, baths, an arena for wrestling matches, and a stadium for foot-races. The walls were adorned with paintings; the gardens and walks were furnished with seats. But we must not suppose, as many suppose, that this establishment was placed under the direction of Aristotle, or that he had any voice in its affairs. He simply received permission to teach in the morning and evening at the *peripatos*, a permission which was the more acceptable because the shady walks offered facilities to his accustomed habit of walking to and fro during the delivery of lectures. The name of Peripatetics is commonly supposed to have been given to his disciples on account of this habit; but as, according to the testimony of Theophrastus and Lycon, the lecture-place itself was named ὁ περίπατος, the locality probably gave the title to his school. This suggestion is countenanced by the practice in other cases; for we find the schools designated by the places where they were founded, unless when some peculiarity in doctrine gave the title: thus the Academy, the Porch, the Garden, Megara, and Cyrene, severally gave names to schools; but never was a name borrowed from some casual peculiarity in the mode of lecturing. Moreover, Aristotle was by no means singular in this practice of promenading while he taught.

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[*] MATTER: *Hist. de l'Ecole d'Alexandrie*, Paris, 1840, I. 30.

For thirteen years he continued teaching, and composing his immortal treatises; powerfully impressing the crowd of eager disciples, but probably regarded with angry suspicion by the patriots, owing to his connection with Alexander. And now came the electric shock, shaking Athens to her foundations, and agitating her with tumultuary hopes: the Great Conqueror was no more! At once, and with exultant energy, the anti-Macedonian party took the lead in public affairs. Aristotle necessarily was in peril; for although, in truth, his life had been blameless of political intrigue, and no colourable accusation could be raised against him on that score, if only because he was excluded from political influence;* yet as a foreigner, a philosopher, and a friend of Macedon, he was trebly odious to the political leaders; and a pretext for accusation was raised on a ground where such pretexts are always easily raised and are always dangerous—irreligion. He was accused of blasphemy, and of paying divine honours to mortals. And who were these mortals he had honoured? His friend and his wife. The charge may seem frivolous; but too well he knew the temper of the multitude to hope that the absurdity of the charge would be a guarantee for his safety. Mobs seldom reason, rarely examine. The blameless life and lofty soul of Socrates had been no defence against the charges of Meletus; and Aristotle quitted Athens, 'not to give the Athenians a second opportunity of committing a sacrilege against philosophy.'

He retired to Chalcis in Eubœa. There he wrote an elaborate defence of his conduct, and exposed the calumnies circulated about him. But his health, always delicate, and severely tasked by unremitting study, rapidly gave way. The Athenians, on his refusal to appear in answer to the summons of the Areopagus, deprived him of citizenship, and all the honours that had been conferred upon him. An idle sentence of death was passed; but nature had already written that sentence in terms that were not idle. He died in the sixty-third year of his age, B.C. 322, only a few months before the great orator, Demosthenes, also an exile.

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* This political attitude is conspicuously set forth in Mr. CONGREVE's introduction to his edition of the *Politics*, London, 1855.

His will, which may be read in Diogenes Laertius, tells of his thoughtful kindness. His daughter Pythias, his son Nicomachus, his adopted son Nicanor, and his concubine Herpyllis, are all duly provided for, and some of his slaves are emancipated, others rewarded.

The purposes of this History render it unnecessary to enter upon the vexed question of the authenticity of the various writings which have passed under his name, had I the scholarship which could justify such a digression. The curious reader will easily find abundant material on this and all cognate points. We have here rather to consider the nature of his achievements. The first thing which must strike every one is their encyclopædic extent, unrivalled in the history of literature. In all branches of science then cultivated he was proficient. He wrote on Politics, giving the outlines of two hundred and fifty-five constitutions; even the little treatise on that subject, which is still extant, is thought to be one of the very best works yet written; and Dr. Arnold, who knew it by heart, declared that he found it of daily service in its application to our own time. His Ethics, Rhetoric, and Logic are still by many held to be authoritative and unsurpassed. His Metaphysics would of itself suffice to found a great renown. His fragment on Poetics is perhaps the most valuable of all ancient critical writings. And as if these were not titles enough, we must now add the several scientific works which form the special object of this volume; these embrace Physics, Astronomy, Zoology, Comparative Anatomy, and Psychology. With Sir W. Hamilton, we may say: 'His seal is upon all the sciences, and his speculations have mediately or immediately determined those of all subsequent thinkers.' Hegel, though of a less fervid temperament, expresses himself with greater emphasis: 'He penetrated into the whole universe of things, and subjected its scattered wealth to intelligence; and to him the greater number of the philosophical sciences owe their origin and distinction.'*

Such an intellectual phenomenon must always excite astonishment. Let us form what opinion we may of his philosophy, we cannot withhold our admiration of the vigour and comprehensiveness of his mind. Nor is this his only claim. He is admirable for the intense urgency of his mind in seeking *scientific* explanations of phenomena, at a period when such explanations were novelties; and for the dominant inductive tendency which led him on all subjects to collect the facts before reasoning on them. The contrast he presents to Plato in this respect is as much to his advantage as the contrast in respect of literary power is to his disadvantage.†

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* HEGEL: *Vorlesungen über die Gesch. der Philos.*, 1833, II. 298.

† The contrast is felicitously presented by MAURICE in the following passage: 'The student passing from the works of Plato to those of Aristotle is struck first of all with the entire absence of that dramatic form and that dramatic feeling with which he has become familiar. The living human beings with whom he has conversed have passed away. Prodicus, Protagoras, and Hippias are no longer lounging upon their couches amidst groups of admiring pupils; we have no walks along the walls of the city, no readings beside the Ilissus, no lively symposia giving occasion to high discourses about love, no Critias, recalling the stories he had heard in the days of his youth, before he became a tyrant, of ancient and glorious republics; above all, no Socrates forming a centre to those various groups. Some little sorrow for the loss of so many clear and beautiful pictures will be felt, perhaps, by every one, but by far the greater portion of readers will believe that they have ample compensation in the precision and philosophical dignity of the treatise for the richness and variety of the dialogue.'—*Moral and Metaphysical Philosophy*, 1850, I. 162.

CHAPTER II.

ARISTOTLE'S METHOD.

ALL philosophy is either an objective inquiry into the relations of Things, or a subjective inquiry into the relations of Ideas. We begin by forming conceptions of phenomena, and then we proceed to inquire how those conceptions were reached; in the second inquiry we have to lay bare the genesis of our knowledge, and, in so doing, to discriminate between its objective and subjective elements; between what is *given* by the external order, and what is *brought* by the mind. This separation has been attempted with more or less success in all ages of philosophy; but it was only in Kant that it was attempted with a clear consciousness of its speculative importance. We shall in the course of our survey have many opportunities of watching the attempt; and we must fix our attention on Aristotle as the first who arranged speculative questions in such a systematic form as stimulated and suggested the research. He not only resumed all the speculations of his predecessors, and placed them in a clearer light by his redistribution of their questions,—he not only condensed the vacillating vapours of philosophy into tangible systems, he constructed an Organon whereby all research might be carried on.

Plato had rightly discerned that science could only be of Universals (as we should say, general propositions): the great question which presented itself following this was: How do we arrive at these general propositions? What *are* these Universals? And the importance of this question is seen when we reflect that, widely as modern science differs from ancient science, both agree in founding their principles on general propositions, the difference arising in the routes by which these propositions have been sought, and the guarantees they offer. In modern science universals are the highest generalities of accurate quantitative research. Often transcending the limits of actual experience, they are always founded on experience, and are strictly conformable with all we know, or think. As abstract expressions of the observed order they are liable at any moment to be displaced by expressions more accurately representing that order. They are recognized as purely subjective. In ancient science they were never suspected to have no objective reality. They were by most thinkers believed to exist quite independently of the knowing mind; and it was the primary aim of science to find them as existences; when found, they needed no confrontation with reality, they were self-disclosed and self-sustained.

It is here that the fundamental difference between ancient and modern philosophy begins, and it is only another form of the fundamental difference between the Subjective and Objective Methods. In Aristotle we are called upon to salute the dawn of the Objective Method, although many centuries had to elapse before that dawn could widen into day. From causes which I have elsewhere explained,* the continued employment of the Subjective Method was inevitable; nevertheless Aristotle may be truly styled the father of the Inductive Philosophy, since he first announced its leading principles; and announced them with a completeness and precision not surpassed by Bacon himself. There is, indeed, a radical defect in his conception of Method, but it is a defect not less visible in the *Novum Organum*, and is common to all the systematic expositions of Method that have yet been published. This defect is the absence of the due recognition of Verification. All writers implicitly recognize Verification as the inseparable attendant of Observation, Induction, and Deduction; but they do not explicitly, and emphatically, assign to it the primary importance it should have; they do not trace in its neglect the cause of every failure. Overlooking this defect, men have expressed surprise at the unquestionable fact that Aristotle and Bacon failed egregiously in scientific research, in spite of their conception of scientific Method; and this failure has sometimes been made a ground for denying the value claimed for Method. But the seeming contradiction disappears on close examination. The failure is then traced to a radical imperfection in the Method. A discrepancy is disclosed between the principles which Aristotle and Bacon implicitly taught, and the principles they actually employed.

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* *Aristotle: A Chapter from the History of Science*, pp. 45–100.

We will first inquire what those principles were. In direct opposition to Plato, who, denying the validity of the senses, made intuitions the ground of all true knowledge, Aristotle sought his basis in sensuous perception. Anticipating Bacon, he affirmed that it was wiser to dissect the complex phenomena of sense than to resolve them into abstractions—'melius est naturam secare quam abstrahere.'* His reliance was on Experience and Induction: the one furnishing the particular facts, from which the other found a pathway to general facts—or laws.† Without sensation thought is impossible.‡ Plato held that the deceptions of sense justified scepticism of all sense-knowledge (*ἀπατῆς μεστὴ ἡ διὰ τῶν ὀμμάτων σκέψις*). Aristotle, more correctly, taught that error did not arise from the senses being false media, but from the wrong interpretations we put on their testimony. Manifold deceptions may thence arise; but each sense speaks truly so far as it speaks at all.§ It is from sense we gain the knowledge of particulars. It is from Induction we gain the knowledge of universals. Agreeing with Plato that Science is only concerned with universals, he affirmed that these could only be reached through experience.

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* Bacon: *Nov. Org.*, 41.

† *ἐπαγωγὴ δὴ ἡ ἀπὸ τῶν καθέκαστα ἐπὶ τὰ καθόλου ἔφοδος.* *Topic*, I. 10. See also *Anal. Post.*, I. 31; *Hist. Animal.*, I. 6.

‡ *οὐδὲ νοεῖ ὁ νοῦς τὰ ἐκτὸς μὴ μετ' αἰσθήσεως ὄντα.* *De Sensu*, VI. 415; *De Anima*, III. 8, 432.

§ *De Anima*, III. 3; *Metaph.*, IV. 5; and elsewhere.

This is the corner-stone of the experience-philosophy or 'Empiricism,' so often urged as a reproach against Aristotle.[*] Hegel boldly denies the charge. Science regards the accusation as an eulogy. Unhappily, even by Aristotle, experience was too frequently neglected and too carelessly interrogated. The vigilance of scientific scepticism was wanting. Yet at times he seems thoroughly impressed with the necessity of securing his basis before attempting to build. 'Let us first understand the facts, and then we may seek for their causes."[†] There are many passages in which he distinctly disapproves of the fatal tendency to eke out deficiencies of observation by mere guesses, and to rely on those guesses as on observations. Of such passages four may here be given :—

I. Speaking of the parthenogenesis of bees, he says, 'There are not facts enough to warrant a conclusion, and more dependence must be placed on facts than on reasonings, which must agree with facts.'[‡]

II. Speaking of Hybridity, after noticing the opinions of his predecessors, and even suggesting an *à priori* argument himself, he says, 'But such a proof is far too abstract and empty (*κενός*). For reasons not drawn from the inherent principles of things (*τῶν οἰκείων ἀρχῶν*) are empty, and only seem to explain them, just as only those are geometrical proofs which are deduced from geometrical principles; so also in all other sciences. The empty argument seems potent, but is powerless.'[§]

III. Speaking of those who held a certain astronomical view, he says, they did so because their thoughts were not directed to the phenomena and the discovery of the causes, but they endeavoured to make the phenomena correspond with their opinions.[||] And still more strongly in this passage: 'These philosophers, treating of phenomena, say things which by no means correspond with the phenomena, the cause of this being that they have not rightly conceived first principles, but reduce everything to certain prescribed notions (*πρός τινας δόξας ὡρισμένας*), and they persist in these in spite of all contradiction, as if they were in possession of true principles, as if these ought not rather to be educed from the phenomena.' *

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[*] Even so late as SCHLEIERMACHER, who urges it in his History of Philosophy.

[†] *De Part.*, I. 1, 639.

[‡] *De Gener. Animal.*, III. 10, 760.

[§] *Ibid.*, II. 8, 748.

[||] *De Cœlo*, II. 13, 293. Compare also *ibid.*, p. 294.

IV. 'The reason why men do not sufficiently attend to the facts is their want of experience. Hence those accustomed to physical inquiries are more competent to lay down the principles which have an extensive application; whereas others who have been accustomed to many assumptions without the confrontation of reality, easily lay down principles, because they take few things into consideration. It is easy to distinguish those who argue from facts and those who argue from notions.' †

Instead of distrusting knowledge derived through the senses, and placing unhesitating reliance on knowledge derived from intuitions, he declared that ideas are nothing but the products of reason. Reason separates, by abstraction, the particular objects from their general relations, *i.e.* those relations which these objects have in common. Anticipating modern Psychology, he taught, confusedly indeed, and not always consistently, that intelligence is a late development; that the understanding is built up from sensuous materials; each particular sensation gives rise to a sensuous taste, and the permanence of this state is Memory; from Memory arise, first, *distinctions*; and finally, after many repetitions, *experience*; from experience a pathway leads to Science, that pathway being Induction. Plato taught that all knowledge was reminiscence—a revival of pre-existent Ideas. 'From any one Idea we can arrive at all others, owing to the logical connection existing between them. In direct contradiction to this, Aristotle maintained that complete knowledge could only arise out of complete experience; and he significantly points out the danger of the Platonic Method, which neglects facts, and rashly concludes a general proposition from a few particulars.[*]

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* *De Cœlo*, III. 8, 306.

† *De Gen. et Corr.*, I. 2, 316. Compare also *De Partibus*, IV. 5, 679.

In indicating the way we are to arrive at general truths, he expresses himself with a precision unsurpassed by moderns. 'We must not,' he says, 'accept a general principle from logic only, but must prove its application to each fact, for it is in facts that we must seek general principles, and these must always accord with the facts.'[†] Nor, while thus insisting on Observation, was he wholly without a perception of the value of that aid to inquiry, which is usually supposed to be a modern invention, I mean Experiment. He did not, indeed, see its importance as moderns have seen it; for, not rightly apprehending the necessity of Verification, he failed to apprehend the true purpose of Experiment, which is simply a means of verifying the accuracy of data, and conclusions hypothetical or theoretical. But he refers to it, and even to vivisection, often enough to mislead a modern worshipper into the belief that this great instrument of scientific research was distinctly recognized by him. Here are a few of the passages I have noticed.[‡]

He refers to the experiment of tying or removing the right testis of the male, previous to congress, in disproof of the hypothesis that the sexes are derived from the right and left testes.[§] He refers to the experiment of removing the eyes from young birds, to show that these organs are capable of being reproduced, a capability not observed in adult birds.[‖] Although he places the seat of motive power in the heart, yet he refers to the experiment of removing the heart from tortoises, after which they still continue for some time to move;* and to prove that the nutritive soul is contained in the centre, he refers to the insects whose heads and limbs may be removed without destroying their vitality. The fact is incorrectly stated. The separated head will live almost as long as the body; and I have often found the hinder part of a triton live and move for hours after its separation from the body.†

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[*] *De Gen. et Corr.*, I. 2.

[†] *De Animal. Motione*, I. 698. Δεῖ δὲ τοῦτο μὴ μόνον τῷ λόγῳ καθόλου λαβεῖν, ἀλλὰ καὶ ἐπὶ τῶν καθέκαστα καὶ τῶν αἰσθητῶν, δι' ἅπερ καὶ τοὺς καθόλου ζητοῦμεν λόγους, καὶ ἐφ' ὧν ἐφαρμόττειν οἰόμεθα δεῖν αὐτούς.

[‡] M. Barthélémy St.-Hilaire has pointed out several others in the introduction to his work *La Météorologie d'Aristote*, Paris, 1863.

[§] *De Gener. Animal.*, IV. 1.

[‖] *Ibid.*, IV. 6.

Aristotle's opposition to the Ideal Theory was one of Method no less than of conclusion; and, in contrast with Plato, he seems like a positive thinker of the modern school. He does not deny to Ideas a *subjective* existence; but he is completely opposed to their *objective* existence, which he regards as an empty and poetical metaphor. He says, that on the supposition of Ideas being Existences and Models, there would be several Models for the same Thing; since the same thing may be classed under several heads. Thus, Socrates may be classed under the Ideas of Socrates, of Man, of Animal, and of Biped; or Philosopher, General, and Statesman. The 'stout Stagirite' not only perceived the logical error of the Ideal theory, but also saw how the error originated. He profoundly remarked, that Ideas are nothing but productions of the Reason, separating, by a logical abstraction, the particular objects from those relations, which are common to them all. He saw that Plato had mistaken a subjective distinction for an objective one; had mistaken a relation, which the understanding perceived between two objects, for the evidence of a separate existence. The partisans of the theory of Ideas, Aristotle likens to those who, having to enumerate the exact number of things, commence by increasing the number, as a way of simplifying the calculation. In this caustic illustration we may see the nature of his objection to the Platonic doctrine. What, indeed, was the Ideal theory, but a multiplication of the number of Existences? Men had before imagined that things were great, and heavy, and black or brown. Plato separated the qualities of greatness, weight, and colour, and made these qualities new existences.

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* *De Resp.*, XVII. 479.

† STILLING narrates that a frog lived, hopped about, and defended itself, for an hour after removal of its heart, and the *whole* of its viscera. *Untersuchungen über ie Functionen des Rückenmarks*, 1842, p. 38.

Having disproved the notion of Ideas being Existences,—in other words, of General Terms being anything more than the expressions of the Relations of individual things,—Aristotle was driven to maintain that the Individual Things alone *existed*. But, if only individuals exist, only by sensation can they be known; and, if we know them by sensation, how is the Universal, *τὸ καθόλου*, ever known—how do we get abstract ideas? This question was the more pertinent because science could only be a science of the Universal, or, as we moderns say, a science of general truths; now inasmuch as Aristotle agreed with Plato in maintaining that sense cannot furnish us with science,* which is always founded on general truths (Universals), it was needful for him to show how we could gain scientific knowledge.

Plato's solution of the problem has already been exhibited; it was the ingenious doctrine of the soul's *reminiscence* of a former apprehension of truth, awakened by those traces of Ideas which sensation discovered in Things. This solution did not satisfy Aristotle. He, too, was aware that reminiscence was indispensable; but by it he meant reminiscence of previous experience, not of an anterior state of existence in the world of Ideas. By sensation we perceive particular things; by *induction* we perceive the general in the particular. Sensation is the basis of all knowledge: but we have another faculty besides that of sensation; we have Memory. Having perceived many things, we remember our sensations, and by that remembrance we are enabled to discern wherein things resemble and wherein they differ; and this Memory then becomes an *art* whereby a general conception is formed: this art is Induction. The natural method of investigation, he says, is to collect all the facts or particulars, and afterwards deduce from these the general causes of all things and their actions.* This is accomplished by Induction, the pathway from particulars to generals. Man alone has this art. The distinction between brutes and men is, that the former, although they have Memory, have no Experience; that is to say, have not the art which converts Memory into Experience—the art of Induction. Man is the reasoning animal.

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* *Analyt. Post.*, i. 31.

That Aristotle meant Induction by the art of which he speaks as furnished by experience, may be proved by one luminous passage of the *Metaphysics*. 'Art commences when, from a great number of Experiences, one general conception is formed which will embrace all similar cases.'† And, lest there should be any misunderstanding of his definition, he proceeds to illustrate it. 'Thus: if you know that a certain remedy has cured Callias of a certain disease, and that the same remedy has produced the same effect on Socrates, and on several other persons, that is *Experience*; but to know that a certain remedy will cure all persons attacked with that disease is *Art*: for Experience is the knowledge of individual things (τῶν καθέκαστα); Art is that of Universals (τῶν καθόλου).'

Hear him again: 'Experience furnishes the principles of every science. Thus Astronomy is grounded on observation; for, if we were *properly to observe* the celestial phenomena, we might *demonstrate the laws* which regulate them. The same applies to other sciences. *If we omit nothing that observation can afford us respecting phenomena*, we could easily furnish the demonstration of all that admits of being demonstrated, and illustrate that which is not susceptible of demonstration.'† And, in another place, when abandoned in his investigation by phenomena, he will not hazard an assertion. 'We must wait,' he says, 'for further phenomena, since phenomena are more to be trusted than the conclusion of reason.'

Looked at in a general way, the Aristotelian Method seems to be the Method of positive Science; but on closer meditation we shall detect their germinal difference to be the omission in Aristotle of the principle of rigorous Verification of each inductive step. The value of the truth expressed by a Syllogism does not consist solely in its accurate distribution, but also in the accuracy of its major premiss; we may form unexceptionable Syllogisms which shall be absurdly erroneous, as when we say, All black birds are crows; This bird is black: *ergo,* This bird is a crow. In the physical and metaphysical speculations of the ancients, we are constantly meeting with syllogisms as perfect as this—and as absurd; because the ancients generally threw their ingenuity into logical deduction, and scarcely ever into preliminary verification. When Aristotle therefore lays down as a canon the necessity of ascertaining generals from an examination of particulars, his canon, admirable indeed, needs to be accompanied by a distinct recognition of the equal necessity of Verification. Contrasted with the Platonic Method, Aristotle's is seen to great advantage. Plato, believing that the stimulus awakened by a single idea would enable a man to arrive at the knowledge of all ideas, in consequence of the necessary connection supposed to exist between them, could very well dispense with Induction. But Aristotle maintained that the completeness of knowledge is only obtainable through completeness of experience; every single idea is awakened in us by a separate sensation, and only on a comparison of like and unlike in phenomena are differences perceived. He complains of Plato, very justly, for neglecting details in haste to judge of universals.

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* *Analyt. Post.*, i. 31.; comp. also *Hist. Animal.*, i. 6.

† Γίνεται δὲ τέχνη ὅταν ἐκ πολλῶν τῆς ἐμπειρίας ἐννοημάτων καθόλου μία γένηται περὶ τῶν ὁμοίων ὑπόληψις, *Met.*, i. 1.

‡ *Analyt. Prior.*, i. 30.

Aristotle had therefore a novel and profound conception of scientific Method; but because he did not—and indeed in that age *could* not—confine himself to Experience and the generalizations of Experience, he could not effectually carry out his own scheme. His conception was just; but the application of such a Method could have led him only a short way, because there was not sufficient Experience then accumulated, from which to generalize with any effect.

Hence his speculations are not always carried on upon the Method which he himself laid down. Impatient at the insufficiency of facts, he jumps to a conclusion. Eager, as all men are, to solve the problems which present themselves, he solved them *à priori*. He applied his Syllogism before he had verified the exactitude of his premisses.

The distinction between Aristotle and Plato is, that while both admitted that science could only be formed from Universals, τὰ καθόλου, Aristotle contended that such Universals had purely a subjective existence, *i.e.* that they were nothing more than the *inductions* derived from particular facts. He, therefore, made Experience the basis of all Science, and Reason the Architect. Plato made Reason the basis. The tendency of the one was to direct man to the observation and interrogation of Nature; that of the other was to direct man to the contemplation of Ideas.

Observe, I say it was the tendency of the Aristotelian Method to direct man to the observation and interrogation of Nature; and this tendency we see illustrated in all the writings of the peripatetic school. But the tendency was in a great degree counteracted by the trammels of the Subjective Method, to which men still clung, and by a want of due appreciation of the indispensable necessity of Verification, whereby alone the Subjective Method could be displaced. We discern in Aristotle's conceptions of what constituted proof the germs of his logical failure.

Science is the co-ordination of facts, the reduction of particular facts to general facts. As this can only take place through an induction of universals from particulars, proof must first lie in the correctness of the induction; and when these universals have been attained, and a deduction is made from them to some new particulars, proof lies in the correctness of this deduction. There is, however, an initial difficulty: all knowledge rests upon antecedent knowledge. We see this in induction and in demonstration; the one arriving at a conclusion from particulars *already known*; the other starting from a conclusion *already known*. Plato evades this difficulty by referring all knowledge to reminiscence. This explanation Aristotle rejects. He affirms that demonstration rests upon Universals which are *in their nature* better known* (or, let us say, more certainly apprehended); whereas Induction rests on particulars, which are better known *to us*. The basis of Science is therefore an Inductive Syllogism.

It is necessary to appreciate clearly this distinction between knowledge of universals and knowledge of particulars. He affirms that, although sensation is the origin of all knowledge, the first ideas awakened in the soul consist of *general* ideas. Thus a man seeing a body at a distance has at first only the general idea of *substance*; on approaching nearer, and observing that it moves spontaneously, he has the less general idea of an *animal*. On approaching still nearer, he recognizes the kind of animal, by recognizing many of the particulars which distinguish it as *kind*; and he thus gains a particular idea, in lieu of his first general idea. In this way the mind advances from the universal to the particular. The infant at first calls every man papa, and every woman mamma; afterwards it learns to discriminate individuals.

The fallacy here is patent. It confounds an *indefinite* with a *generalized* conception. It is a fallacy which leavens ancient speculation.

Since proof rests on universals, perception, which is concerned only with particulars, can give no science. Nay, if we could perceive that a triangle has the sum of its angles equal to two right angles, we should still be forced to seek for a proof of it (*ἐζητοῦμεν ἂν ἀπόδειξιν*), otherwise we should have no knowledge of it.

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* This very important distinction in his philosophy was completely misunderstood by the schoolmen, who, as Mr. ELLIS pointed out, were misled by the ambiguity of the Greek dative, and for *notius naturâ*, which would have been the proper rendering of **τῇ φύσει γνωριμώτερον**, substituted *notius naturæ*, as if Aristotle contrasted Nature's knowledge with our own. BACON fell into this error: *Works* by ELLIS and SPEDDING, 1857, I., 137. The same mistake is made by ROGER BACON: *Opus Majus*, Venet. 1750, p. 46.

If the question be asked *why* we must seek this proof of what has already been perceived, Aristotle answers: 'Because only particulars can be perceived, and science is of universals.' In another work (for hitherto I have been drawing from the *Analytics*), he judiciously remarks that it is absurd to seek for a proof of that which is clearly known, and for which all the conditions of a correct perception are present.* But even the universal must be obtained through induction from perceptions. He says that if we were in the moon, and the earth, coming between us and the sun, deprived us of light, we should have no knowledge of the cause of darkness; we should see that the moon was dark, but not why it was dark. It is true that, from frequent observation, we might find out the cause by detecting the universal; since *out of numerous particulars the universal becomes evident* (ἐκ γὰρ τῶν καθέκαστα πλειόνων τὸ καθόλου δῆλον). But, he adds, the universal has the preference, because it makes evident the cause. We do not understand a phenomenon until we can demonstrate its cause by a syllogism, showing that it necessarily follows from some general principle. Hence syllogism is the true scientific instrument; and as the syllogism proceeds from the general to the particular, it must be better known in its nature than the particulars it has to prove.

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* *Phys.*, VIII. 3. Compare *Metaph.*, IV. 4.

CHAPTER III.

ARISTOTLE'S LOGIC.

THAT Aristotle was the first who instituted a separate Science named Logic, is a popular error. He has indeed the merit of having fully and systematically developed the various logical doctrines in a way unknown to his predecessors, and but little improved by successors for many generations; but he neither named these doctrines Logic, nor did he conceive them as parts of a separate science. That which since his day has been called the *Organon* is but a collection of independent essays on logical questions; and so far from its having any such purpose as the one commonly attributed to it, namely, the exposition of the Laws of Thought as Thought, the separation of Formal from Objective Logic, the unbiassed student will quickly discover that it has no systematic purpose, and the historian of philosophy knows that such a separation into Formal and Objective had not then been thought of.

It is unnecessary here to state in detail the contents of the separate treatises, which have been the text-book of logicians for centuries, and which therefore have supplied a want and exercised a fascination such as few works can rival. I shall content myself with a brief indication of their main results.

Logic is the science of Affirmation; Affirmation is the active operation of the Mind on that which sensation has presented to it; in other words, Affirmation is Thought. Affirmations may be true or false: there can be no falsehood in Sensation. If you have a sensation of an object, it must be a true sensation; but you may affirm something false of it. Every single thought is true; but, when you connect two thoughts together, that is, when you affirm something of another thing, you may affirm that which is false. Everything therefore that you think about may be reduced to a Proposition; in fact, thoughts are a series of Propositions. To understand the whole nature of Propositions—to understand the whole Art of Thinking—is the province of Logic.

By a very natural confusion, Aristotle, thus convinced of the importance of language, was led to maintain that truth or falsehood did not depend upon things, but upon words, or rather upon combinations of words—upon Propositions. Logic therefore to him, as to Plato, though in a different way, became the real Organon of Science. But, as John Mill remarks, 'the distinction between real and nominal definitions, between definitions of words and what are called definitions of things, though conformable to the ideas of most Aristotelian logicians, cannot, as it appears to us, be maintained. We apprehend that no definition is ever intended to explain and unfold the nature of the thing. It is some confirmation of our opinion that none of those writers who have thought that there were definitions of things have ever succeeded in discovering any criterion by which the definition of a thing can be distinguished from any other proposition relating to that thing. The definition they say unfolds the nature of the thing: but no definition can unfold its whole nature; and every proposition in which any quality whatever is predicated of the thing unfolds some part of its nature. The true state of the case we take to be this: All definitions are of names and of names only; but, in some definitions, it is clearly apparent that nothing is intended except to explain the meaning of the word; while, in others, besides explaining the meaning of the word, it is intended to be implied that there exists a thing corresponding to the word. Whether this be or be not implied in any given case, cannot be collected from the mere form of expression. 'A centaur is an animal with the upper parts of a man and the lower parts of a horse,' and 'a triangle is a rectilineal figure with three sides,' are, in form, expressions precisely similar; although, in the former, it is not implied that any *thing* conformable to the term really exists, while in the latter it is; as may be seen by substituting, in both definitions, the word means for *is*. In the first expression, 'a centaur *means* an animal,' &c., the sense would remain unchanged: in the second, 'a triangle means,' &c., the meaning would be altered, since it would be obviously impossible to deduce any of the truths of geometry from a proposition expressive only of the manner in which we intend to employ a particular sign.

'There are, therefore, expressions commonly passing for definitions which include in themselves more than the mere explanation of the meaning of a term. But it is not correct to call an expression of this sort a peculiar kind of definition. Its difference from the other kind consists in this, that it is not a definition, but a definition and something more. The definition given above of a triangle, obviously comprises not one, but two propositions, perfectly distinguishable. The one is, "There may exist a figure bounded by three straight lines;" the other, "and this figure may be termed a triangle." The former of these propositions is not a definition at all; the latter is a mere nominal definition or explanation of the use and application of a term. The first is susceptible of truth or falsehood, and may therefore be made the foundation of a train of reasoning. The latter can be neither true nor false; the only character it is susceptible of is that of conformity or disconformity to the ordinary usage of language.

'There is a real distinction, then, between definitions of names and what are erroneously called definitions of things; but it is that the latter, along with the meaning of a name, covertly asserts a matter of fact. This covert assertion is not a definition, but a postulate. The definition is a mere identical proposition, which gives information only about the use of language, and from which no conclusions respecting matters of fact can possibly be drawn. The accompanying postulate, on the other hand, affirms a fact which may lead to consequences of every degree of importance, It affirms the real existence of things possessing the combination of attributes set forth in the definition; and this, if true, may be foundation sufficient to build a whole fabric of scientific truth.'*

This distinction was not seen by Aristotle, and his whole philosophy was vitiated by the oversight. He regarded Definition not only as the Instrument of Thought, but as the Instrument of Investigation.

Philosophy having to classify Knowledge first attempts to classify existences, or the widest general relations under which existences can be known. These are the Categories. The history of the doctrine of Categories has been exhaustively treated by Trendelenburg,† and to his work the student is referred. The arrangement of Aristotle is as follows:—

Οὐσία	Substance.
Πόσον	Quantity.
Ποῖον	Quality.
Πρὸς τί	Relation.
Ποιεῖν	Action.
Πάσχειν	Passion.
Ποῦ	The where.
Πότε	The when.
Κεῖσθαι	Position in space.
Ἔχειν	Possession.

These Categories, or, as the Latin writers say, Predicaments, were intended to be an enumeration of those classes or *genera*, under some of which everything was to be reduced. They were held to be the most universal expressions for the various relations of things; they could not further be analyzed, but remained the fundamental definitions of things. It is, however, as has been remarked,‡ a mere catalogue of the distinctions rudely marked out by the language of familiar life, with little or no attempt to penetrate, by philosophic analysis, to the *rationale* even of those common distinctions.

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* MILL: *System of Logic*, i. 195–7.

† TRENDELENBURG: *Geschichte der Kategorienlehre*, 1846; comp. HAMILTON: *Lectures on Logic*, i.; BUHLE: *Gesch. der neueren Philos.*, i. 282–7.

‡ MILL: *System of Logic*, i. 60.

Such an analysis, however superficially conducted, would have shown the enumeration to be both redundant and defective. Some objects are omitted, and others repeated several times under different heads. It is like a division of animals into men, quadrupeds, horses, asses, and ponies.

The remark is just, and would have been admitted as just by Aristotle himself, since he does not pretend the classification is complete, but confesses that the same object may, under different categories, be at once a quality and a relation. But Aristotle does not usually ascribe much importance to this enumeration of the most general notions; so that we may regard it as nothing more than an attempt to exhibit in a clear light the signification of words taken absolutely, in order to show how truth and falsehood consist in the right or wrong combination of these elements.*

However imperfect this attempt at classification may be, it was held to be a satisfactory attempt for many centuries; nor was any one bold enough to venture on another until Kant, who, as we shall see, had quite a different object. We have not here to criticize it, but to exhibit its historical position. The idea of examining the *forms* of thought could scarcely have originated earlier. Previous speculators had occupied themselves with inquiries into the origin and nature of knowledge: Aristotle saw that it was time to inquire into the necessary forms of thought. To do this, to analyze the various processes of the mind in all its details, is the object of the treatises united together in his Logic.

Some had declared sense-knowledge to be deceitful; others had declared that sense-knowledge was perfectly faithful, as far as it went, but that it was incapable of penetrating beneath phenomena. Scepticism was assuming a menacing attitude. Aristotle, in his way, endeavoured to meet it, and he met it thus: It is true that the knowledge derived from our senses is not always correct; true also that our senses are to be trusted, as far as they go. A sensation, as a sensation, is true; but any affirmation you may make about that sensation may be either true or false, according to the affirmation. If an oar dipped in the water appears to you to be broken, the sensation you have is accurate enough; you *have* that sensation. But if, on the strength of that sensation, you affirm that the oar is broken, your affirmation is false. Error lies not in false sensation, but in false affirmation.

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* RITTER, iii. 66.

Like Plato, he held it to be indispensable to understand words if we are to understand thoughts; a position which, as we saw in the teaching of Socrates, was both novel and at the time important, because it called attention to the extreme laxity of language under which men disguised the laxity of their reasoning. A word, he said, is in itself indifferent; it is neither true nor false: truth or falsehood must result from a combination of words into a proposition. No thought can be erroneous; error is only possible to propositions.

Hence the necessity of Logic, which is the science of affirmations; it is in the Enunciate Proposition, *ἀποφαντικὸς λόγος*, that we must seek truth or falsehood. This proposition is subdivided into Affirmative and Negative propositions, which are mutually opposed, and gave rise to Contradiction so soon as they are asserted in the same sense of one and the same thing: *e.g.* 'It is impossible for the same thing to be and not to be.'

The principle of Contradiction he declares to be the deepest of all; for on it all Demonstration is founded. Because, *however, he confounded truth of Language with truth of Thought, and supposed that Thought was always the correlate of fact, he fell into the mistake of maintaining truth of Language, or Propositions, to be identical with truth of Being.*

Having erected Propositions, or the affirmative and negative combinations of Language, into such an exalted position, it became necessary to attend more closely to names, and thus we get the Predicables, a fivefold division of general Names, not grounded, as usual, upon a difference in their meaning, that is, in the attribute which they *con*note, but upon a difference in the kind of class which they *de*note. We may predicate of a thing five different varieties of class-name:—

Γένος	a Genus.
Εἶδος	a Species.
Διαφορά	a Difference.
Ἴδιον	a Property.
Συμβεβηκός	an Accident.

'It is to be remarked of these distinctions that they express not what the predicate is in its own meaning, but what relation it bears to the subject on which it happens on the particular occasion to be predicated. There are not some names which are exclusively general and others which are exclusively species or differentiæ; but the same name is referred to one or another Predicable, according to the subject of which it is predicated on the particular occasion. *Animal*, for instance, is a genus with respect to Man or John; a species with respect to substance or Being. The words genus, species, &c. are therefore relative terms; they are names applied to certain predicates, to express the relation between them and some given subject: a relation grounded, not upon what the predicate *con*notes, but upon the class which it *de*notes, and upon the place which in some given classification that class occupies relatively to the particular subject.'*

Induction and Syllogism are the two great instruments of his Logic. All knowledge must rest upon some antecedent conviction; and both in Induction and Syllogism we see how this takes place. Induction sets out, from particulars already known, to arrive at a conclusion; Syllogism sets out, from some general principle, to arrive at particulars.† There is this remarkable distinction, however (already noticed), established by him between the two, namely, that the general principle of the syllogism is *better known in itself* and in its own nature, while the particulars from which Induction

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Mill: *System of Logic*, i. 162.

† *Analyt. Post.*, i. 1.

proceeds are better known to us.* How came he by this distinction? Thus: the particulars of Induction are derived from Sense, and are more liable on that account to error; whereas the general principle of the Syllogism is known in itself, is further removed from the fallacies of sense, and is *κατὰ τὸν λόγον γνωριμώτερον*. Do we not always doubt whether we have rightly understood anything until we have demonstrated that it follows by necessity from some general principle? And does not this lead to the conviction that the Syllogism is the proper form of all science? Moreover, as the Syllogism proceeds from the general, the general must be better known than the particular, since the particular is proved by it.

Sensations are less trustworthy than ideas. The particulars are sensibles, but in and for themselves they are nothing; they exist only in relation to us. Nevertheless we are forced to make them our point of departure. We begin with sensuous knowledge to reach ideal knowledge. In this manner we proceed from the world of experience to that higher world of cognition.

The various investigations into the nature of Propositions which Aristotle prosecuted, were necessary to form the basis of his theory of reasoning, *i.e.* the Syllogism. He defined the Syllogism to be an enunciation in which certain Propositions being laid down, a necessary conclusion is drawn, distinct from the Propositions and without employing any idea not contained in the Propositions. Thus:—

All bad men are miserable;
Every tyrant is a bad man:
ergo,
All tyrants are miserable.

His examination of the sixteen forms of the Syllogism exhibits great ingenuity, and, as a dialectical exercise, was doubtless sufficient; but it must not detain us here. The theory of the Syllogism is succeeded by the theory of Demonstration. If all knowledge owes its existence to anterior knowledge, what is this anterior knowledge? It is the *major* proposition of a Syllogism. The conclusion is but the application of the general to the particular. Thus, if we know that Tyrants are miserable, we know it because we know that All bad men are miserable; and the middle term tells us that Tyrants are bad men. To know, is to be aware of the cause; to demonstrate, is to give the Syllogism which expresses the knowledge we have. It is therefore necessary that every scientific Syllogism should repose upon principles that are true, primitive, more evident in themselves than the conclusion, and *anterior* to the conclusion. These undemonstrable principles are Axioms, Hypotheses, &c., according as they are self-evident, or as they presuppose some affirmation or negation; they are Definitions when they limit themselves to an explanation of the essence of the thing defined, without affirming anything respecting its existence.

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* *Φύσει μὲν οὖν πρότερος καὶ γνωριμώτερος ὁ διὰ τοῦ μέσου συλλογισμὸς, ἡμῖν δ' ἐναργέστερος ὁ διὰ τῆς ἐπαγωγῆς.*—*Analyt. Prior.*, ii. 24.

The proper subjects of demonstration are those universal attributes of particular things which make them what they are, and which may be predicated of them. It is one thing to know *that* a thing is so; another thing to know *why* it is so: hence the two orders of demonstrations, the τοῦ ὅτι, 'the demonstration of the cause from a consideration of the effect,' and the τοῦ διότι, 'the demonstration of the effect from the presence of the cause.'

We close this exposition of the leading points of Aristotle's Logic with his own somewhat touching words, as he concludes his work: 'We have had no works of predecessors to assist us in this attempt to construct a science of Reasoning; our own labours have done it all. If, therefore, the work appears to you not too inferior to the works on other sciences which have been formed with the assistance of successive labourers in the same department, you will show some indulgence for the imperfections of our work, and some gratitude for the discoveries it contains.'

CHAPTER IV.

THE METAPHYSICS.

SCHOLARS and critics have attempted in vain to reduce the chaos of topics embraced in the treatises stitched together (not otherwise united) and known under the general title of Metaphysics. But although the ingenious effort of the Hegelian Michelet[*] was considered by the French Academy worthy of being crowned; and although I admit that he has so manipulated the books as to arrange them into something like systematic sequence; yet I would refer every unbiassed reader to the original itself, and ask him if any one of the books, considered separately, has the coherence and systematic development of topics which would be looked for in a modern work? The fact is we seek for such systematic composition only because we regard, and justly, Aristotle as a mighty precursor; and Philosophy having since become systematic, very much owing to his influence, we are led to infer that he also must have felt the necessities which are now universally felt. They were not felt then. He was the first who made any attempt to reduce knowledge to a system, to make the various branches of inquiry spring from one root. And the first attempt at so enormous a scheme may be excused if it were defective; while the individual portions of the scheme were necessarily in too immature a condition for anything like a connected exposition. We might as well open the 'Natural History of Animals,' and expect to find there something of our systematic Zoology. Indeed, the presupposition, absurd as it really is, has been generally entertained; and moderns have not only expected to find a classification and philosophic principles in Aristotle's work, but have deluded themselves with the idea that they had found them.* When ancient works are approached in this spirit we need not wonder if they offer little difficulty to an inventive ingenuity. The very want of order which strikes the unbiassed mind, is seized on as a deliberate touch of higher art; and thus Michelet applies the verse

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[*] KARL MICHELET, *Examen critique de l'ouvrage d'Aristote intitulé Métaphysique, ouvrage couronné par l'Académie*, Paris, 1836.

> Souvent un beau désordre est un effet de l'art;

without any suspicion, apparently, that the disorder must justify itself by its beauty before it can claim to be art, and that disorder, simply as such, is not strength, but weakness.

It is incompatible with the limits and purpose of this History to expound at any length the various opinions which are jumbled together in the Metaphysics and the Physics. Various attempts have been made to reduce them to order,† and throughout the twenty centuries which have elapsed since they were promulgated, philosophers have quarrelled as to the correct interpretations which these opinions should receive. It is not thus with the systems of Descartes, Spinoza, Locke, Berkeley, Hume, or Kant.

I shall only touch on some of the more important positions. Aristotle so clearly saw and so felicitously explained the necessity of pursuing the true Method, passing from the known to the unknown, instead of beginning with the unknown (and unknowable) to descend to the known, that thinkers of the positive order have in all times found telling passages to quote from him, and thinkers of the metaphysical order have been prone to despise him as an empiricist. He did, indeed, emphatically proclaim the vanity of the *à priori* method. He insisted on the basis of experience; and he always begins an inquiry by enumerating (what is often quite superfluous) the opinions commonly received, and the decisions of philosophers, nay, even descending to minute examinations of the various meanings affixed to terms. This eminently unscientific procedure is still largely adopted by men of science, who, indeed, find it easier to expound what men have said about a fact, than what Nature says about it. This is to mistake the history of a science for the exposition of a science. What is it to us, who desire to know the fact itself, that the profound A, or the illustrious B, thought this or that about it? Had they rational data for their thought? If so, let us have the data, and leave the men to history. Aristotle collects the vagrant opinions of common men, and the more or less ingenious guesses of philosophers, hoping to elicit from these the *notiones communes* of speculation. But while thus invoking experience, he is led astray by the assumption that First Principles and Causes (τὰ πρῶτα καὶ αἴτια which form the subject of Philosophy) can be accessible through experience. In one sense this is true, and it is the truth which doubtless has misled so many minds. We do arrive through experience at generalizations which transcend experience, at laws wider than any particular instances accessible to us; but even in their widest sweep, these are only expressions of phenomena, and are purely relative; they disclose no absolute causes. Moreover, we have always to be on the alert to see that these generalizations express no more than experience warrants, and are not fictions of our imagination. Our tendency is to substitute the formal for the material elements of conception, to carry the subjective into the objective. And this tendency was so misleading to Aristotle that he considered noumena and cause to be better known than phenomena.

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* See this point argued at length in my *Aristotle*, chap. xv.

† Biese, *Die Philosophie des Aristoteles*, 1842; Brandis, *Aristoteles und seine Nachfolger*, 1853–57; Hegel, Buhle, Tennemann, Ritter, Zeller.

He seems so cautious and judicious when indicating the first steps, that we are surprised to find him suddenly on the other side, with no bridge visible over which he could have passed. In his definition of science we see a recognition of that generality which is deduced from experience, though never given in experience; as when he says that we know by experience that Socrates was cured by the same remedy that cured Callias and many others, but we know by science that all men attacked by the same disease can be cured by the same remedy. It is in necessity and universality that we recognize science; and these cannot be given in experience. So far all is clear. But when he goes on to explain that science is of a deeper and wider knowledge than experience, because it teaches us the causes and reasons of things, and we only know anything correctly when we know not simply what it is, but why it is, he quits the ground of experience and abruptly takes up his position on that of the unknowable. He nowhere proves, or attempts to prove, that we can know the how and the why; he assumes it. He shows that experience of a thousand instances may lead us to the conviction that a certain remedy will cure a certain malady; but he nowhere shows that this conviction still remains nothing but a generalization of experience, and cannot lead us to a deeper knowledge than that the fact *is* so; *why* it is so we must learn from another source, if it can be learned.

He is at one with Science in affirming that principles form the objects of inquiry; that he who possesses these knows all that is subordinate to them, or may know it; whereas he who knows particulars by no means necessarily knows principles; finally, that principles, being farthest removed from sensations, are the most difficult of attainment. It is only when we come to ascertain what were the principles Aristotle conceived as standing thus at the apex of philosophy, that we see the wide difference between his speculations and modern speculations. There are, he thinks, four first principles or causes.

I. The *formal cause* or *essence*, known under the scholastic titles of 'quiddity' and 'substantial form,' is what may be called the *raison d'être* of a thing. Although form cannot be disjoined from substance in fact, it can in thought,—and that was enough for the ancients. We still preserve the idea in such phrases as, 'the essence of good government consists in reconciling order with progress;' or, 'the essence of a circle consists in the equi-distance of every point in the periphery from the centre.'[*] The substantial form, in short, is that which makes a thing to be what it is. N.B.—The distinction between the *essence of a thing* and the *essence of our conception of a thing* had not then been admitted into philosophy.

II. The *material cause—causa materialis—ἡ ὕλη καὶ τὸ ὑποκείμενον*—is the matter itself, conceived apart from its form. Under all the varieties of things we recognize something which exists as the *subject* of these varieties; for example, the substance of the soul is something distinct from its phenomena.

III. The *motor cause*—efficient cause—*ἡ ἀρχὴ τῆς κινήσεως*—which plays so great a part in scholasticism, is a conception necessarily added to the two first-named causes, since these alone will not explain movement or change. But inasmuch as change is incessant, there must be some principle of change. Nature is not self-moved; we must, therefore, assume a Prime Mover, himself immoveable.

But even thus we fail to account for the phenomena of this changing universe. What is it which determines each particular movement to be that and not another? What is it which causes the harmony, regularity and beauty of the world? Obviously a fourth cause:—

IV. The *final cause—τὸ οὗ ἕνεκα καὶ τἀγαθόν.* This gives to every movement an aim, and a benevolent aim. The good of each and the good of all is the final cause of every change.[†]

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[*] 'En contemplant les choses, nous voyons qu'elles sont différentes entr'elles, et que chacune a quelque chose de particulier qui la distingue des autres: c'est ce qu'on appelle *l'essence* d'une chose, qu'on définit *ce qui fait qu'une chose est ce qu'elle est.*'—'S GRAVESANDE: *Introd. à la Philosophie*, Leyden, 1737, p. 5. This is strictly Aristotelian, and explains the phrase by which Aristotle defines the formal cause:—*ἡ οὐσία καὶ τό τι ἦν εἶναι.* The phrase is not grammatically explicable. See TRENDELENBERG's edition of the *De Animâ*, 1833, pp. 192–471; or ZELLER: *Philosophie der Griechen*, 1860, ii. 147.

[†] 'Finis vero est, quo res tendit. Finium alii præoptati, alii consequentes. Præoptati ejus generis sunt, ut valetudo quæ medicamentis et deambulatione com-

It is apparent, on the most casual inspection, that no one of these causes can be verifiable; no one of them is susceptible of any stronger guarantee than that of a certain logical concordance in the assumptions we make respecting them; but inasmuch as they pass beyond the sphere of ideas, and claim to represent external realities, Verification is indispensable; yet it cannot be applied. Such conceptions are, therefore, utterly unscientific. Nevertheless the slow evolution of Science has not altogether disengaged itself from their trammels. Even in the present day there are not wanting men of eminence who firmly uphold the validity of final causes, and believe teleological argument to be an instrument of research. This is owing to the lingering influence of the Subjective Method, an influence almost entirely banished from astronomy, physics, chemistry. The Objective Method teaches that it is idle to assign a final cause, unless we believe that we have, or can have, authoritative knowledge of what actually were the Creator's intentions: and such knowledge Science modestly disclaims; it endeavours to co-ordinate facts; assumptions respecting the intentions of the Creator are not verifiable; if we accept them as we accept other transcendental conceptions, they can only be an unknown quantity in our calculation. The futility of the teleological argument may be seen in this, that until we have discovered the law of succession, until the facts are co-

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paratur. Consequentes vero ejus generis sunt, ut medicatio et deambulatio: primum enim valetudinem, deinde ea quæ valetudini faciunt, 'quærimus.'—HERMOLAUS BARBARUS: *Compendium scientiæ naturalis ex Aristotele*, 1547, *Lib.* i. p. 6. I cannot quote from this once renowned and now forgotten scholar, without remarking that, although he occupies a prominent place in the correspondence of scholars during the latter part of the fifteenth century, and was thought by ERASMUS to be a 'divine man,' whose name could never die, he has so completely passed out of sight, that most Encyclopædias and Biographical Dictionaries do not even mention him. A good account of him is given in JOHNSON: *Life of Linacre*, 1835. SCALIGER speaks of him as 'incomparabilis doctrinæ, divinæ probitatis.'—*Contra Cardanum*, 1557, Exerc. clvii. The notices in TIRABOSCHI: *Storia della Lett. Ital.*, 1807, vi.; in HEEREN: *Geschichte der classischen Litteratur im Mittelalter*, ii. (*Werke*, 1821–8, v.); and in CORNIANI: *I Secoli della Lett. Ital.*, 1818, iii., are obviously at second hand, drawn probably from that marvellous torso of Italian erudition, MAZZUCHELLI: *Gli Scrittori d' Italia*, 1758, vol. ii. parte i. 256.

ordinated, the assumption of a final cause brings with it no illumination, and when the law has been discovered, the addition of the final cause brings no increase of knowledge.

It is a necessary consequence of his conception of Science that it deals not with generalities laboriously arrived at through inductions, and capable of verification both at every ascending step of induction, and every descending step of deduction, but with generalities which are inaccessible to verification. Hegel has a characteristic sneer at the physicists of our day: he says 'Aristotle's Physics are Metaphysics; that which physicists tell us of is what they have seen or what delicate instruments they have made, not what they have thought.' * The sneer falls harmless, for the accusation is ludicrously inexact; but it may be retorted on the metaphysicists that they tell us only what they have thought, and not what they, or any one else, can have *seen.* Aristotle did use his eyes. But unhappily, while duly impressed with the importance of Fact, he was under the dominion of the metaphysical delusion that a better explanation of the causes of phenomena was to be learned from ideas than from phenomena themselves. Thus he not only quitted the observation of phenomena and their relations, for speculations upon Being apart from phenomena, but, by an inevitable consequence of this error, he sought the secret of Being in verbal and logical distinctions.

This is what he found: Being is understood in various senses. It is either substance or accident; it is either a possibility or an actuality. (These four words form the texts of interminable discussions throughout the history of metaphysics. A clear insight into the distinction between objective and subjective existence would have put an end to these discussions at once; but such an insight was long in being reached.) What is Substance? According to Aristotle it has four different meanings:—

I. *Matter*, or the substratum (τὸ ὑποκείμενον), which, because it is the subject of all attributes, and never an attribute itself, is called Being *par excellence.*

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* Hegel, *Gesch. der Phil.* ii. 337.

II. *Form* (τό τι ἦν εἶναι) is that which is in itself and for itself. Combined with Matter, which is indeterminate, it constitutes individual existence. Thus these two categories complete the idea of Being, the one representing its potentiality (δύναμις), the other its actuality (ἐνέργεια); for Matter is Substance only *in posse*; Form is Substance *in esse.*

III. *The Universal.* This Aristotle rightly regards as an illusion of philosophers, meaning Plato above all. The Universal cannot be Substance, for the substance of an individual belongs only to the individual, whereas the Universal is common to many. Moreover Substance is not an attribute, the Universal is.

IV. *Genus.* This fourth sense in which Substance is understood is rejected on the same grounds as the third.

The distinction, which played so great a part in Arabian and Scholastic philosophy, between Matter and Form, between potential and actual existence, the δυνάμει ὂν and the ἐνεργείᾳ ὂν or ἐντελεχείᾳ ὄν, is an interesting example of the metaphysical tendency to transport a subjective distinction into the objective world, to make ideas the prototypes of things. Matter was supposed to exist only as a possibility before it received its Form (a confusion of the non-specified with the non-existent), the Form giving it actuality. Brass, for example, before it is made into a statue by the sculptor, exists as brass, in forms quite as real as that of a statue, though the Peripatetics declared it to be indeterminate matter which passed from possibility into actuality on receiving the form of the statue, and, ceasing to be brass in general (which it never was), became a brazen thing.

I have already explained in the Prolegomena the fallacy which is involved in this distinction of potential and actual, and which applies, of course, to the distinction between substance and accident. It is fundamental with Aristotle. Without this distinction his system cannot stand. He never suspected that there was no objective reality in his famous δύναμις; that whatever is is, and whatever is not is not. He regarded the conquering general as one who, before the battle had been fought, was equally a conqueror, though a conqueror then *in possibility*, *ἐν δυνάμει*. But it is clear that this existence *post rem* is the resultant of a complex concurrence of conditions, and can only be assigned *ante rem*, on the assumption that we may form our conception of the general before the battle out of all the subsequent conditions. It is perfectly true that could we have clearly seen all the existing conditions, we should also have seen all their effects; could we have seen the strength, skill, and courage of his army, and the weakness of the enemy, we should have foreseen the victory, and esteemed him as the victor. But this would be to annihilate history. We should see simultaneously that which in reality was developed successively. Strictly speaking, the victor both before and after the battle is a man standing in definite relations to conditions past and present. These conditions are in turn related to others; they are products of preceding conditions, and will produce successors. Our conception of the man is determined by our knowledge of these. Events being in reality successive and not simultaneous, and our imperfect vision of existing conditions enabling us only to foresee some of their results, our conceptions of what is possible (*i. e.* what may result) depend on our knowledge of the actual. As a matter of fact nothing really exists till it exists; and nothing exists possibly; for possibility is only the uncertainty of our ignorance.

Matter as potential existence is a subjective fiction. Equally subjective is the distinction between existence *per se* (*κατ' αὐτὸ*) and existence *per accidens* (*κατὰ συμβεβηκός*). There is no accident in nature. Everything is essential. The pimple on a philosopher's face, which, according to the conveniences of language, would be called an accident, not pertaining to the essence of the man, unnecessary to our conception of the philosopher, is nevertheless objectively as necessary and essential as the skin it disfigures, or as any other part of the complex group of realities which in their totality constitute the man. There are grammatical conveniences in separating the predicate from the subject, and logical conveniences in separating the variable from the invariable appearances, designating the former as accidental and the latter as essential. But there are no such distinctions in being.

Substance is commonly understood as that which would remain behind when all the accidents were removed. But a thorough-going analysis leads us to pure Nothing as the termination of such a removal of all accidents. Potential existence is a fiction; useful, it may be, in the department of Logic, but dangerously illusive in Metaphysics.

The theory of Matter and Form is an attempt to solve the problem Plato solved by his theory of Ideas. Aristotle saw clearly enough the untenability of the ideal theory, but his conception of Substantial Forms was only a modification of it, and was open to similar objections. Plato said, that the Idea of an animal pre-existed, and when united with material elements, there was a living reality as a result. Aristotle said, that the animal became a living reality when the potential animal passed into actuality, its vital principle being the Form.

I may here notice another and kindred conception which the Aristotelians seized with great avidity, namely, the confusion of logical with real in the matter of contraries. Thus originated the famous principle of Privation, the contrary of Form. He first laid down the axiom that Form could only be one of two contraries; and as both these contraries could not exist at one and the same instant, the active interference of Privation became necessary to account for the contrary which was at any instant absent. Thus a man must be either cultivated or non-cultivated. He cannot at the same time be both. That which prevents his being either is the Privation of the Form. This verbal jugglery not only found wondering admirers in ancient times, it has found admirers in our own.*

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* 'Voilà cette théorie fameuse de la matière et de la forme si souvent reprochée

By ringing the changes on Virtual and Actual, Substance, Form, and Privation, he and his followers built up a theory of the universe, which, as intellectual gymnastics, had undoubted value, but which was not likely to lead to discovery. Indeed the futility of the whole scheme is shown in its utter incompetence to explain even the simple laws of motion. It was an unconscious effort to make Logic do the work of Metaphysics; and the Logic itself had extremely questionable premisses.

à Aristote, et qu'on critiquera sans doute plus d'une fois encore. Pour moi je la trouve simple et vraie.' BARTHÉLÉMY ST.-HILAIRE, *La Physique d'Aristote*, 1862, i. p. xxviii.

CHAPTER V.

ARISTOTLE'S PSYCHOLOGY.

IN my work on Aristotle I have analysed all the writings which directly or indirectly treat of psychological questions; and from it I may extract a few passages containing the leading doctrines.

The first part of the celebrated *De Animâ* is biological. Not until the fifth chapter of the second book does it approach the question of Sensibility.

Having defined sensation 'the result of a motion and an impression,' he starts this difficulty:—Why is there no sensation from the senses themselves? That is to say, why, in the absence of external objects, do not the senses give sensation, since fire and earth and the other elements are present in them, and it is from these that sensation is derived?

The answer runs thus:—Because the sensibility is not in a state of *actuality*, but only of *potentiality*;* and, therefore, it is with it as with a combustible body, which alone, without something on fire, does not burn; for, otherwise, it might set fire to itself, and could stand in need of no actual fire.

He then indicates the distinction between primary and secondary qualities; each of the special senses perceives a special quality, as sight, colour, hearing, sound, &c.; but, besides these, there are qualities more generally perceived, belonging not to one sense alone, but to all in common—such are motion, form, number, magnitude.

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* It will not escape the reader that this answer is only a restatement of the difficulty in other words; but it has more the appearance of an answer than that given by HERMOLAUS BARBARUS: *Compendium Scient. Nat. ex Aristotele,* 1547, v., *de Animâ,* p. 51.

'It is difficult to specify the organ percipient of tangible qualities, whether or not it is the flesh, and that which is analogous to flesh in other creatures; yet flesh is only a *medium*, and the essential organ, *πρῶτον αἰσθητηρίον*, must be something different and internal. . . . Is, then, this sentient organ within the flesh, or is it the flesh itself which is immediately perceptive? No indication can be obtained from the fact of sensation being simultaneous with tangible impression, for were any one to extend a membrane over his flesh, the part would be equally sensible when touched, and sensible at the moment of contact; and yet, clearly, the sentient organ cannot be in that membrane. . . . When the sentient organ itself is touched, no sensation can there or then be produced, any more than a white object can be seen when placed immediately over the surface of the eye; and thus it is evident that the part perceptive of tangible impressions must be *internal*.' Although not stated here, we know that by this *internal* part, which is perceptive, he means the heart, the central seat of all sensibility.

Chap. XII. is on Perception. 'It must be admitted that each sense is receptive of the *sensible forms* of things (ideas, images) without their *matter*, as wax takes the impress from a seal-ring without the iron or gold of which the ring is made.'

Why, then, do plants not feel, seeing that they have a psychical organ (*μόριον τι ψυχικόν*), and are impressible by tangible objects? The reason is that they want the *central* faculty (*μεσότητα*), which alone would admit of their being impressed by sensible forms without the matter. Constituted as they are they receive the matter along with the forms.

Book III., *Chap. I.*, continues the discussion of Sensibility. We have, he says, but five senses. Touch makes us aware of whatever is tangible; all other qualities are perceived, not through touch, but through the media air and water. The sentient organs are constituted of these two simple bodies: the pupil is composed of water, the organ of hearing is composed of air, and the organ of smell is of one or the other. Fire forms no part of any organ; or rather it is an element common to all, since there is nothing sentient without heat.

We are furnished with several senses, instead of one, in order that the common properties of bodies—motion, magnitude, number—may the less readily escape notice. If vision were our only sense, then all other qualities except colour would escape notice, seeming to be identical with it. But as common properties are manifested by different bodies, it is evident that they must also be different.

Chap. II.—'Vision must be by sight, or by some other sense; but if by some other sense, then *it* will be perceptive of sight and colour, the subject of sight, and thus there will be two senses for one office, or the sight itself will be the percipient. But if to perceive by sight is seeing, and if that which is seen is colour, or something having colour, then if any sense is to see, that which sees must first have colour.* It is thus manifest that perception by sight is not a single perception, for when we cannot see, it is still by sight that we judge both of darkness and light, although not in the same manner.'

This, as may be imagined, has been an enticing passage to commentators, and is full of pitfalls both of equivoque and psychological subtlety. Much of the obscurity of psychological questions arises from the tendency, almost irresistible, to refer all perceptions to the organs of sense, instead of to that consciousness which is affected by the organs of sense in their action: *e.g.* perceptions are referred to the retina rather than to the optic centre. Hence, also, the confusion of objective with subjective, as when we speak of a colour which is unseen, of a sound which is unheard.

'If motion, production, and impression, are in the product, it follows that sound and hearing, in an active state, must pre-exist *potentially* in hearing; for the action of the motor exists naturally in that which is acted on. It is, therefore, not necessary that the motor itself should be in motion. The action of a sonorous body is sound, or sounding; that of the auditory sense is hearing; for hearing is double, as sound is double. The same applies to other senses and perceptions. Since production and impression are not in that which acts, but in that which is impressed, so the action of the object of perception, and the sensibility, are in the sentient organ. But while for some senses the two states have been distinguished by separate names—such as sound and hearing—there are others for which one or the other state is without a name. Thus, the action of vision is called sight, but the action of colour is unnamed; the action of the gustatory sense is called taste, while that of savour is without a name. Since the action of the object and the sentient organ is one and the same, though different in mode of acting, it follows that hearing and sound in this sense must be lost together, or together preserved. But this does not hold of such relations in *potentiality*. The earlier writers expressed themselves ill, in saying there could be neither black nor white without sight, nor savours without taste. And yet they were partly right; for as senses and sentient impressions have a twofold acceptation, according to their potentiality or activity, so what was advanced by these writers may be true of one state, and not true of the other. But they reasoned about things considered as isolated which do not in truth admit of being isolated.'

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* Wär' nicht das Auge sonnenhaft,
Wie könnten wir das Licht erblicken?
GOTHE.

'Each sense is perceptive of its own objects, is innate in its own organ, as an organ, to discriminate qualities—Sight judging of black and white, Taste of bitter and sweet. But how do we perceive that qualities differ? Evidently by some sense, because the impressions are sentient; and the flesh cannot be that final sentient, ἔσχατον αἰσθητήριον, since to judge of qualities it must of necessity first touch bodies.'

His meaning here is by no means clear. He says emphatically that we have only five senses; that each sense can only discriminate its own objects; that that which perceives white to be different from sweet cannot be the sense of Taste nor the sense of Sight, yet it must be a sense, because the impression is sentient; finally, he says that the sense cannot be Touch, because to judge of qualities, that sense must first touch bodies—by which he probably means that white and sweet not being tangible, cannot be perceived by Touch.

What, then, is this judicial sense? He has nowhere told us. He enters upon discussions as to whether the judging faculty is divisible or indivisible, and this numerically or locally; but *what* it is, or *where* it is, he has not explained in this treatise. Elsewhere we gather that he means the common sensorium, which is in the front centre (heart) of each animal.*

Chap. III.—'The soul being characterized generally by the faculties, locomotion and thought, judgment and sensibility, it would seem that thought and reflection are considered to be forms of sensation. All writers assume that thinking, like feeling, is corporeal, and that Like is comprehended by Like. But they should have noted the liability of the senses to produce error. It is manifest that feeling is not the same as reflection; the one belonging to all creatures, the other only to a few. Neither is the judging faculty, which discerns right from wrong, to be confounded with sensation; for sensation being derived from particulars is always true, and belongs to all animals; but error lies in udgment, and none are liable to error save those which have reason.'

Imagination is then treated. He says it is neither senation nor judgment, yet it is never called up without sensaion. It is the faculty by which an image of some kind is alled up within us, and is to be ranked with those faculties, uch as sensation, opinion, and knowledge, by which we form udgments.

Chap. IV. has peculiar interest, being devoted to the *νοῦς*, or intellect, 'that part of the Soul by which it both knows and reflects.'

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* ἕν τι κοινὸν αἰσθητήριον.—*De Juventute*, i. 467. Compare also *De Somno*, ii. 4.

'If thinking be similar to sensation,' he says, 'then may it be some kind of impression by the object of thought, or some other analogous agency. But that which thinks must then be passive, ἀπαθὲς, receptive of the Forms of objects, and identical with the objects in potentiality, though not so in actuality. In a word, the Intellect must be related to objects of thought, as sensibility is to objects of perception. Thus, the so-called Intellect of the Vital Principle (and by Intellect I mean that which judges and compares) has in actuality no existence prior to the act of intelligence.* It is very improbable, therefore, that the mind should have been commingled with the body; for if this were so, it would be a quality of some kind, as hot or cold; or *it would have some kind of organ such as there is for sensation*; but there is none such.'

'It is well said that the Soul is the *place of Forms* (τόπος εἰδῶν); but this is not to be understood of the whole soul, only of the cogitative part; and of Forms, not in actuality, but in potentiality.'

He argues that the reflective faculty is not the sensitive faculty in a state of repose. 'The mind judges of flesh and ideal flesh, either by some different faculty, or by being itself differently affected. It is by sensibility that we judge of hot and cold and other properties of flesh; but it is either by some distinct faculty—or as a curved line is to a straight line—that we judge of ideal flesh.'

Chap. V.—The soul is creative. It is essentially an energizing influence. Knowledge *in activity* is identical with the object; but in potentiality, it pre-exists in the indi-

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οὐθὲν ἔστιν ἐνεργείᾳ τῶν ὄντων πρὶν νοεῖν. This, if I understand it aright, means that the mind has no substantive existence, but exists only in act, as a function. The passage is very obscure. TRENDELENBURG, who has a long note on the parenthesis, which does not require one, is silent on the only real difficulty. TORSTRIK says, 'intellectus non est actu idea antequam cogitet' (οὐκ ἔστιν αὐτοῦ φύσις οὐδεμία ἀλλ' ἢ αὕτη ὅτι δυνατόν = οὐθὲν ἔστιν ἐνεργείᾳ τῶν ὄντων πρὶν νοεῖν), ed. *De Animâ*, p. 198.

vidual. 'Yet rigorously speaking that cannot be said to pre-exist which sometimes is, and sometimes is not, reflected on. But that alone, whatever it be, which is separate from everything else, is deathless and eternal. We have no memory of it because it is passionless (ἀπαθὲς); and the impressible mind is perishable, and without it there can be no reflection.'

Chap. VI. briefly reiterates the argument that the senses are free from error, which arises solely from the judgment.

Chap. VII.—The opening sentence may be read as a vague anticipation of the modern hypothesis, that knowledge, or rather the aptitude for acquiring knowledge, becomes developed in the race, and is thus transmitted from parent to child, so that the offspring of European parents is capable of acquiring a higher degree of intellectual development than the offspring of Australian parents reared under similar conditions.

Hume's doctrine* that the mind is simply the succession of impressions is thus formularized at the close of the chapter: 'The mind in the act of thinking is the things thought of.' †

Aristotle has written much about the senses in several works. The treatise *De Sensu*, in the *Parva Naturalia*, is perhaps the best source we can consult; and it may, therefore, be analysed briefly here.

The early philosophers sought in the four elements, earth, air, fire, and water, for the several bodies constituting the senses. As there are five senses, and only four elements were generally recognized, a fifth element was imagined. What that element is, Aristotle does not say; elsewhere we learn t is the Ether.

I.—*Vision.*

Every one, he says, believes Vision to be of fire; the eason is that men misconceive the phenomenon of sparks dancing before the eyes when rubbed, especially in the dark. But if we cannot deny that we feel and see that which we see, it necessarily follows that the eye sees itself. Now, why have we this sensation only when the eye is rubbed?

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* Hume: *Treatise on Human Nature*, Works, 1826, i. 269.

† ὅλως δὲ ὁ νοῦς ἐστιν ὁ κατ᾽ ἐνέργειαν τὰ πράγματα νοῶν.

The explanation offered is that smooth bodies shine naturally in the dark, though without producing light; now the pupil of the eye is smooth; and when the eye is rubbed it seems as if that which was one became two. The rapid motion makes the eye which is seen and that which sees appear different. The phenomenon is not producible unless the eye be rubbed quickly, and in darkness (I suppose he means by darkness the eye being closed, otherwise the qualification is erroneous), smooth bodies shine no less than certain fish heads, and the ink of the cuttlefish. When the eye is rubbed slowly, the sensation is not such as to make us think that what sees and what is seen are one and the same, so that the eye may see itself as in a mirror.

This, it must be confessed, is not a fortunate attempt at explanation. Newton, in one of his celebrated queries added to the *Optics*, first clearly stated that the sparks which arise when the eye is rubbed, 'arise from such motions excited in the bottom of the eye by the pressure and motion of the finger, as at other times are excited there by light for causing vision.' But it was Johannes Müller, stimulated by the *Farbenlehre* of Goethe, who placed beyond a doubt the fact that each special nerve of sense responds only in one special manner, no matter how various may be the stimuli, so that whatever excites the optic nerve excites a luminous sensation; whatever excites the auditory or gustatory nerves excites sonorous and sapid sensations; and the pressure on the skin-nerve which excites pain, excites in the optic nerve not pain, but a luminous sensation.

Aristotle, knowing nothing of the properties of the optic nerve, could not, of course, give an explanation of the phenomenon. But his explanation is better than that of Empedocles and Plato, who held "the eye to be of fire.' He asks, àpropos of this, 'If vision is produced when light passes from the eye, as from a lantern, why can we not see in the darkness? To pretend that light is extinguished by the darkness, on quitting the eye, is absurd.'

He thinks Democritus 'right in asserting that the vision is "of water," but wrong in asserting it to be an image (appearance, ἔμφασις), for the image is produced because the eye is a smooth surface, and vision is not in it, but in the seeing faculty. The affection is a refraction, ἀνάκλασις γὰρ τὸ πάθος. But in those days the theory of images and refraction was not understood. Moreover, it is absurd not to have asked why the eye alone can see, and not other bodies.'

'It is correct to say that vision is of water; not because it is of water, but because it is diaphanous, and this quality is common to air. Water, however, retains and receives it better than air, and that is why the pupil and the eye are of water. The soul is assuredly not at the surface of the eye, but within; hence the eye must be translucent and capable of receiving light. Thus men in battle wounded near the temple, so that the optic channels (nerves, πόροι) are divided, have felt darkness come on as if a lamp had been extinguished; for indeed the diaphanous and the pupil form a sort of lamp.'

'Thus it is evident we must assign an element to each sense, and say that the part of the eye which sees is of water, that which hears is of air, and that which smells is of fire. Touch is earthy. Taste is a kind of Touch. The eye is a part of the brain; and the brain is the moistest and coldest part of the body. Touch and Taste are connected with the heart, which is the hottest part of the body.'

We have next an exposition of Colour. He defines Light 'the colour of the diaphanous *per accidens*;' or, as he expresses it in the *De Animâ*, 'colour is a movement of the diaphanous,' which may be interpreted into an anticipation of the modern undulatory theory, the diaphanous standing for the elastic ether, and the movement being its undulations.

'When there is an igneous body (πυρῶδές τι) in the diaphanous, we have light; when none, we have darkness.* That which we call the diaphanous does not belong exclusively to water, air, and other bodies which are translucent. It is some common nature and force, which not existing separately exists in these bodies and in others, in some more and in some less.' †

What that force was supposed to be I cannot discover from the writings now extant; he seems to have considered it sufficiently described by its name.

'As all bodies have necessarily a limit, so also has the diaphanous, and this limit is colour, which is either the limit of bodies, or *at* their limit; and hence the Pythagoreans call colour "the surface."'

'Colour being the limit of the diaphanous in a limited body, it is possible that that which produces light in the air will also be in the diaphanous in limited bodies, or will not be there; and thus, as in the air there may be light or darkness, so in bodies there may be white and black. The white and black may be placed side by side, so that both may be invisible separately, on account of their minuteness, yet, nevertheless, the result of the two will be visible. But this result can be neither black nor white; but as it must have some colour the colour will be a compound of the two. That is how different colours arise. Many colours are also produced by the combination of the parts: thus three may be arranged with two, or four, and other combinations. Those colours which depend on proportional numbers are harmonious, such as purple and scarlet.' ‡

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* Telesio held Light to be visible heat—lux caloris species est—which is *tinged* by the colours of the objects through which it passes.—*De Rerum Natura*, 1586, vii. 292–3. This is a much more superficial view than that of Aristotle; and the same may be said of most of his deviations from the doctrines of the Stagirite.

† ἀλλά τίς ἐστι κοινὴ φύσις καὶ δύναμις, ἣ χωριστὴ μὲν οὐκ ἔστιν, ἐν τούτοις δ' ἐστὶ καὶ τοῖς ἄλλοις σώμασιν ἐνυπάρχει, τοῖς μὲν μᾶλλον τοῖς δ' ἧττον.

‡ For an elaborate exposition of the views held by the ancients on the subject of colour, see Prantl: *Aristoteles über die Farben, erläutert durch eine Uebersicht der Farbenlehre der Alten*, Munich, 1849. But perhaps the most intelligible account is that given by Goethe: *Geschichte der Farbenlehre. Werke*, xxxix.

II.—*Taste and Smell.*

'These have great similarity, though produced in different organs. The nature of flavours is more evident than that of odours, because our sense of smell is less keen than it is in other animals; on the other hand, we have Touch more sensitive than any other animal, and Taste is a kind of Touch.

'Although water is insipid by nature, it is necessary that water should contain all flavours which escape our perception on account of their feebleness; or that it should contain a matter which is the germ of all flavours; or finally, that water having no difference of flavour in it, the cause is heat. Thus the flavour of fruit is developed by heat. All the flavours to be found in fruits are to be found also in the earth. At least the ancients thought that water varied with the soils through which it passed, which is evident from salt waters, as salt is also a kind of earth.* Thus water filtered through cinders contracts a bitter taste, and so of the rest. We may hence see why plants have their various flavours; for moisture, like everything else, is modified by its opposite, and dryness is the opposite of moisture. Thus moisture is modified by fire, for fire is by nature dry. Thus when something sapid is dissolved in water, the water becomes sapid; and in the same way nature acts upon the dry element, and the earthy element: it filters the moisture through the dry and earthy, setting it in motion by heat, and giving it all the necessary qualities. This modification of moisture is flavour.'

'As various colours arise from the combinations of black and white, so various flavours arise from the combinations of sweet and bitter; and these combinations may be proportional or indefinite. Those which are agreeable depend on numerical proportion. The kinds of flavour resemble those of colour: both are seven in number.'

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* Who were these ancients? The commentators declare that METRODORUS and ANAXAGORAS are alluded to. Perhaps so; yet the opinion may be found very distinctly expressed by HIPPOCRATES: *De Aëre, Locis et Aquis.*

'Odours are perceptible in air and water; they are transmitted by the diaphanous which is common both to air and water. That water alone suffices is proved by the fact that fish have the sense of smell. Odour is dry flavour conveyed by the moisture in air and water. All sapid bodies are odorous.'

III.—*Hearing.*

Either Aristotle forgot to include Hearing in this treatise, or else the chapter has been lost. But his views are expressed in the *De Animâ* (ii. 8), from which we may borrow them in a compressed form.

'Sound is both potential and actual; for we say that some bodies, such as sponge, wool, &c., are without sound, and others, as brass, wood, hard and smooth bodies, have sound, because able to make sound *actual* by the *action of the medium between the object and the ear.* Actual sound is the result of something in relation to something, and in something; for its cause is percussion. But with only one body there can be no percussion; so that the sonorous object sounds by its relation to another. Without movement there can be no percussion, and sound is not produced by the percussion of every substance; and hollow bodies create, by reflex, many percussions after the first, owing to the medium within them having been set in motion and being unable to escape. Sound is audible in air, and less distinctly in water.* But neither air nor water can be the cause of sound, since there must be a percussion of solid bodies against each other and against the air.'

'A vacuum is justly called the lord of hearing (*κύριον τοῦ ἀκούειν*), for the air appears to be a vacuum, and when moving continuously creates hearing. But being very diffluent, it gives out no sound, unless when that which is percussed is smooth: in this case the air becomes *uniform* over its surface, for the surface of a smooth body is *one*. Every sonorous body sets in motion the air which is, by continuity, one with the organ of hearing; and sound being in the air, the air without the organ sets in motion the air within. An animal, therefore, does not hear in every part, for every part does not contain air. The air itself, owing to its diffluence, is without sound; but when confined, its motion produces sound. The air within the ear is so immured as to be incapable of escape;* and this, in order that the sense may perceive accurately all variations of its movement. And thus we are enabled to hear in water; for the water cannot gain access to the congenital air, or pass through the convolutions of the ear. The ear is constantly giving out sound, as a horn does; for the air within it is continually moving in some peculiar manner. Hence we speak of hearing by a vacuum and something resonant, because we hear by the part which contains the air confined within it.'

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* An error which observation might have guarded against; since very simple experience shows water to be a better conductor of sound than air. The velocity with which sound traverses water has been calculated as four times its velocity through air.

IV.—*Sensation in general.*

Having passed the Senses in review, he then touches on certain general questions relative to sensation. And first of its divisibility *ad infinitum*.

If bodies are infinitely divisible, are the impressions they make on us equally so? This question Aristotle answers with manifest superiority over Sir William Hamilton, who, probably from an unsuspected reminiscence, has used the very same illustrations to justify his own doctrine of 'latent consciousness.' That our consciousness may arise out of unconscious modifications is evident, according to Hamilton, in the fact of a *minimum visible*, which is the smallest surface that can be seen: 'It is plain that if we divide this *minimum visible* into two parts, neither half can by itself be an object of vision or visual consciousness. They are, severally and apart, to consciousness as zero. But it is evident that each part must have produced in us a certain modification, real though unperceived, for as the perceived whole is nothing but the union of unperceived halves, so the perception is only the sum of the two modifications, each of which severally eludes our consciousness.' *

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* The translation in the text came spontaneously from my pen, because I was not aware that the language of Aristotle had puzzled the commentators. (See TRENDELENBURG, p. 386, for an example.) The sense is so plain that I cannot even now comprehend how it has been missed. Aristotle says the air in the ear is immoveable or unmoved, ἀκίνητος; *immobilis* is BUSSEMAKER's translation, *immoveable* is COLLIER's. Yet inasmuch as the movement of this air is mentioned immediately afterwards, the verbal contradiction is glaring; yet it is only verbal. If we suppose that ἀκίνητος has reference to the air which ἐν τοῖς ὠσὶν ἐγκατῳκοδόμηται (is immured within the ears), the meaning is obvious enough. A man is said to be immoveable from his studio or bureau without any imputation on his power of movement; but commentators, boggling at small contradictions, and passing by great ones without remark, would point out that a man cannot be immoveable if he move at all.

The fallacy of this argument may be disclosed in a counter illustration: the stick which at a distance of three feet just touches us, and produces the sensation of contact, will no longer produce that sensation if broken in half, and held towards us at a distance of three feet: it will not affect our consciousness at all: the two halves thus pointed towards us do not produce modifications in our consciousness the sum of which is perceived when the whole touches us. Hamilton's mistake lies in the vague conception of a *minimum visible*, which being the extreme point of visual consciousness, anything beyond that extreme must necessarily pass altogether beyond the sphere of consciousness. It does not become *latent*; for consciousness it becomes non-*existent*. The difference *in degree* has amounted to a difference *in kind*.

Aristotle justly says that the sensible qualities are named such because they produce sensation. 'All magnitude is necessarily sensible. Were it otherwise there would be bodies which had no colour, no weight, nor any other quality, and which consequently would not be perceptible to us, since it is by such qualities that we have perception. But the sensible is composed of sensible qualities, and assuredly not of mathematical definitions.* How do we form any judgment of sensible things? By the intellect? But the ideas are only possible when based on sensations. The solution of these questions makes manifest why the kinds of colour, taste, &c., are limited, or finite. It is because in all things which have extremes there must also be intermediate points of limitation; now contraries are extremes, and in all sensible impressions there are contraries, as white and black in colour, sweet and bitter in taste. A body that is continuous therefore may be infinitely divided into *unequal* parts, but its divisibility into *equal* parts is finite. That which is not continuous as a whole has its parts (species) finitely divisible. Since we call the sensible qualities species, and they are always continuous, we must distinguish between the *actual* and *potential*; and hence we do not see the millionth *part* when we see the million, nor do we hear the quarter-tone when we hear the melody; the interval is imperceptible and is lost in other sounds. It is the same with the infinitely little in other sensibles: they are *potentially* visible, but not *actually* visible when isolated.† Thus the line of one foot is potentially in the line of two feet; but exists actually only when alone. The infinitely small qualities are lost in surrounding bodies, as drops of perfume poured into the sea. This infinitely little which transcends sensation is neither sensible in itself nor by itself, for it is only sensible potentially in the larger quantity.'

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* HAMILTON: *Lectures on Metaphysics*, 1859, i. 350. It is strange that neither the erudite Hamilton, nor his erudite editors, should have mentioned Aristotle in this place.

I have preserved the Aristotelian phraseology, but the reader will find little difficulty in disengaging the meaning, and will perceive how this distinction of the potentially and actually visible agrees with and yet rises superior to Hamilton's idea of our being unconsciously modified by that which never reaches the consciousness, so that two zeros may make an unit.

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* πᾶν εἶναι μέγεθος αἴσθητον· ἀδύνατον γὰρ λευκὸν μὲν ὁρᾶν μὴ ποσὸν δέ· εἰ γὰρ μὴ οὕτως, ἐνδέχοιτ' ἂν εἶναί τι σῶμα μηδὲν ἔχον χρῶμα, μηδὲ βάρος, μηδ' ἄλλο τι τοιοῦτον πάθος· ὥστ' οὐδ' αἰσθητὸν ὅλως· ταῦτα γὰρ τὰ αἰσθητά. Τὸ ἄρ' αἰσθητὸν ἔσται συγκείμενον οὐκ ἐξ αἰσθητῶν. 'Αλλ' ἀναγκαῖον· οὐ γὰρ δὴ ἔκ γε τῶν μαθηματικῶν. vi. 445.

† δυνάμει γὰρ ὁρατά, ἐνεργείᾳ δ' οὔ, ὅταν χωρισθῇ.

In the concluding chapter he enters upon the question whether we can have two different sensations in the same instant of time; a question of some psychological interest. He answers it in the negative.

In reviewing Aristotle's opinions on the Senses, it is requisite to bear in mind that he was wholly without the anatomical and physiological, no less than the physical and chemical knowledge, which could have given an assured basis to his speculations. It is a subject which, even in our own day after so much laborious inquiry, is only beginning to be understood; and the psychologist will have many years yet to wait, before science furnishes him with the data he requires.

I must not linger longer over Aristotle, the more so as his researches in Physics and Biology have been handled by me in some detail in the work already mentioned. There I have pointed out how his reliance on experience and induction led him to fruitful results, and how the *à priori* Method substituted for observation and induction led him into error. The combination of the two tendencies is very noticeable in his works. It prevents his being clear and consistent, but it gives his works a singular prestige. All schools find dicta there. All opinions seem more or less anticipated. He stimulates the activity of his readers, provokes them by his obscurity and irreconcilable assertions, and imposes on them by the weight of his intellect, so that they cannot help fancying he had some profound meaning in sentences which were mere guesses, incapable of proof. They meet with many passages which light up whole tracks of inquiry, and many subtle distinctions which have taken their place in philosophy, as for example that of the primary and secondary qualities of body; and they naturally suppose that passages obscure to them have an inner light.

The contribution of Aristotle to the historical evolution of

Science was considerable, although his special inquiries were seldom successful. He instituted the important science of Logic; directed men's attention to the necessity of examining the grounds of knowledge and the forms of thought. He also made philosophy embrace all topics of rational research. But his crowning glory was the impulse he gave to the purely scientific spirit by his constant appeal to Experience as the source of knowledge, and his insistance on the methods of Observation and Induction. If his teaching fostered the vexatious quibbling of schoolmen, it also fostered the scientific research of the Arabs. Both tendencies are more or less due to his influence, and hence it is that his mighty intellect may justly be regarded as the dominant power in all subsequent speculation, till the rise of the modern schools.

SUMMARY OF THE SOCRATIC MOVEMENT.

Socrates appeared during the reign of scepticism. The various tentatives of the early thinkers had all ended in a scepticism, which was turned to dexterous use by the Sophists. Socrates escaped this scepticism by a new development of Method. Armed with this instrument, he withdrew men from metaphysical speculations about Nature, which had led them into the inextricable confusion of doubt. He bade them look at man. Moral Philosophy took the place of physical and metaphysical speculation. The Cyrenaics and the Cynics attempted to carry out his method; but, as they did so in a one-sided manner, their endeavour was only partially successful.

Plato, the youngest and most remarkable of the disciples of Socrates, accepted the Method, and applied it more widely. Nevertheless Ethics furnished the most important of his speculations. Physics were subordinate to and illustrative of Ethics. The Truth—the God-like existence—which he for ever besought men to contemplate that they might share it, had always an ethical object: it was sought by man for his own perfection. How to live in a manner resembling the Gods, was the fundamental problem which he set himself to solve. But there was a germ of scientific speculation in his philosophy, and this germ was developed by his pupil, Aristotle.

The difference between Socrates and Aristotle is immense: Plato, however, fills up the interval. In Plato we see the transition-point of development, both in Method and in Doctrine. Metaphysical speculations are intimately connected with those of Ethics. In Aristotle, Ethics only form one branch of philosophy: the other branches usurp the larger share of his attention.

One result of Aristotle's labours was precisely this: he brought Philosophy round again to that condition from which Socrates had wrested it; he opened the world again to speculation.

Was then the advent of Socrates nullified? No. The Socratic Epoch conferred the double benefit on humanity of having first brought to light the importance of Ethical Philosophy, and of having substituted a new and incomparably better Instrument for the one employed by the early speculators. That Instrument sufficed for several centuries.

In Aristotle's systematization of the Method, and, above all, in his bringing Physics and Metaphysics again into the region of Inquiry, he paved the way for a new epoch—the epoch of Scepticism; not indeed the unmethodical Scepticism of helpless baffled guessers, like that which preceded Socrates; but the methodical and dogmatic exposure of the vanity of philosophy.

EIGHTH EPOCH.

Second Crisis in Philosophy—The radical imperfection of the Subjective Method again becomes manifest in the impossibility of applying its criterion.

CHAPTER I.

THE SCEPTICS.

§ I. PYRRHO.

IN the curious train which accompanied the expedition of Alexander into India, there was a serious, reflective man, who followed him from a purely philosophical interest: that man was Pyrrho, the founder of the Sceptical philosophy. Conversing with the Gymnosophists of India, he must have been struck with their devout faith in doctrines so unusual to him; and this spectacle of a race of wise and studious men believing a strange creed, and acting upon their belief, may have led him to reflect on the nature of belief in general. He had already, by the philosophy of Democritus, been led to question the origin of knowledge; he had learned to doubt; and now this doubt became irresistible.

On his return to Elis he became remarked for the practical philosophy which he inculcated, and the simplicity of his life. The profound and absolute scepticism with which he regarded all speculative doctrines, had the same effect upon him as upon Socrates: it made him insist wholly on moral doctrines. He was resigned and tranquil, accepting life as he found it, and guiding himself by the general precepts of common-sense. Socrates, on the contrary, was uneasy, restless, perpetually questioning himself and others, despising metaphysical speculations, but eager for truth. Pyrrho, dissatisfied with all the attempts of his predecessors to solve the great problems they had set to themselves, declared the problems to be insoluble. Socrates was also dissatisfied: he too declared that he knew nothing; but his doubt was an active, eager, questioning doubt, used as a stimulus to investigation, not accepted as a final result of all investigation. The doubt of Pyrrho was a reprobation of all philosophy; the doubt of Socrates was the opening through which a new philosophy was to be established. Their lives accorded with their doctrines. Pyrrho, the grand Priest of Elis, lived and died in happiness, peace, and universal esteem.* Socrates lived in perpetual warfare, was always misunderstood, was ridiculed as a sophist, and perished as a blasphemer.

The precise doctrines of Pyrrho it is now hopeless to attempt to recover. Even in antiquity they were so mixed up with those of his followers, that it was found impossible to separate them. We are forced, therefore, to speak of the sceptical doctrines as they are collected and systematized by that acute and admirable writer, Sextus Empiricus.

The stronghold of Scepticism is impregnable. It is this: There is no criterion of truth. Plato had propounded his Ideal Theory, Aristotle refuted it by proving it to be purely subjective. But then the theory of Demonstration, which Aristotle placed in its stead, was not that equally subjective? What was this boasted Logic, but the systematic arrangement of Ideas obtained originally through Sense? According to Aristotle, knowledge could only be a knowledge of phenomena; although he too wished to make out a science of Causes. And what are Phenomena? Phenomena are the Appearances of things. But where exists the criterion of the truth of these Appearances? How are we to ascertain the exactitude of the accordance of these Appearances with the Things of which they are Appearances? We know full well that Things appear differently to us at different times; appear differently to different individuals; appear differently to different animals. Are any of these Appearances true? If so, *which* are? and *how* do you know which are true?

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* All the stories about him which pretend to illustrate the effects of his scepticism in real life are too trivial for refutation, being obviously the invention of those who thought Pyrrho ought to have been consequent in absurdity.

Moreover reflect on this: We have five senses, each of which reveals to us a different quality in the object. Thus an Apple is presented to us: we see it, smell it, feel it, taste it, hear it bitten; and the sight, smell, feeling, taste, and sound, are five different Appearances—five different Aspects under which we perceive the Thing. If we had three Senses more, the Thing would have three qualities more; it would present three more Appearances: if we had three Senses less, the Thing would have but three qualities less. Are these qualities wholly and entirely dependent upon our Senses, or do they really appertain to the Thing? And do they *all* appertain to it, or only some of them? The differences of the impressions made on different people seem to prove that the qualities of things are dependent on the Senses. These differences at any rate show that things do not present one uniform series of Appearances.

All we can say with truth is, that Things appear to us in such and such a manner. That we have Sensations is true; but we cannot say that our Sensations are true images of the Things. That the Apple we have is brilliant, round, odorous and sweet, may be very true, if we mean that it appears such to our senses; but, to keener or duller vision, scent, tact, and taste, it may be dull, rugged, offensive, and insipid.

Amidst this confusion of sensuous impressions, Philosophers pretend to distinguish the true from the false; they assert that Reason is the Criterion: Reason distinguishes. Plato and Aristotle are herein agreed. Very well, reply the Sceptics, Reason is your Criterion. But what proof have you that this Criterion itself distinguishes truly? You must not return to Sense: that has been already given up; you must rely upon Reason; and we ask you what proof have you that your Reason never errs? what proof have you that it is *ever* correct. A Criterion is wanted for your Criterion; and so on *ad infinitum.*

The Sceptics maintain that because our knowledge is only the knowledge of Phenomena, and not at all of Noumena—because we only know Things as they *appear* to us, not as they really *are*—all attempt to penetrate the mystery of Existence must be vain; for the attempt can only be made on appearances. But, although absolute Truth is not attainable by man, although there cannot be a science of Being, there can be a science of Appearances. The Phenomena, they admit, are true as Phenomena. What we have to do is therefore to observe and classify Phenomena; to trace in them the resemblances of coexistence and succession, to trace the connections of cause and effect; and, having done this, we shall have founded a Science of Appearances adequate to our wants.

But the age in which the Sceptics lived was not ripe for such a conception: accordingly, having proved the impossibility of a science of Being, they supposed that they had established the impossibility of all Science, and had destroyed all grounds of certitude. It is worthy of remark that modern Sceptics have added nothing which is not implied in the principles of the Pyrrhonists. The arguments by which Hume thought he destroyed all the grounds of certitude are differently stated from those of Pyrrho, but not differently founded; and they may be answered in the same way.

The Sceptics had only a negative doctrine; consequently, only a negative influence. They corrected the tendency of the mind towards accepting its conclusions as adequate expressions of the facts; they served to moderate the impetuosity of the speculative spirit; they showed that the pretended Philosophy of the day was not so firmly fixed as its professors supposed. It is curious, indeed, to have witnessed the gigantic efforts of a Socrates, a Plato, and an Aristotle, towards the reconstruction of Philosophy, which the Sophists had brought to ruins—a reconstruction, too, on different ground—and then to witness the hand of the iconoclast smiting down that image, to witness the pitiless logic of the Sceptic undermining that laboriously-constructed edifice, leaving nothing in its place but another heap of ruins, like that from which the edifice was built; for, not only did the Sceptics refute the notion that a knowledge of Appearances could ever become a knowledge of Existence, not only did they exhibit the fallacious nature of sensation, and the want of certitude in the affirmations of Reason, they also attacked and destroyed the main positions of that Method which was to supply the ground of certitude; they attacked Induction and Definitions.

Of Induction, Sextus, in one brief, pregnant chapter, writes thus:—'Induction is the conclusion of the Universal from individual things. But this Induction can only be correct in as far as all the individual things agree with the Universal. This universality must therefore be verified before the Induction can be made: a single case to the contrary would destroy the truth of the Induction.'*

We will illustrate this by an example. The whiteness of swans shall be the Induction. Swans are said to be white because all the individual swans we may have seen are white. Here the Universal (whiteness) seems induced from the particulars; and it is true in as far as all particular swans are white. But there are a few black swans; one of these particular black swans is sufficient to destroy the former Induction. If, therefore, says Sextus, you are not able to verify the agreement of the universal with every particular, *i.e.* if you are not able to prove that there is no swan not black, you are unable to draw a certain and accurate Induction. That you cannot make this verification is obvious.

In the next chapter Sextus examines Definitions. He pronounces them perfectly useless. If we know the thing we define, we do not comprehend it because of the definition, but we impose on it the definition because we know it; and if we are ignorant of the thing we would define, it is impossible to define it.

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* *Pyrrhon. Hypot.* vol. ii. c. xv. p. 94. The edition I use is the Paris folio of 1621, the first of the Greek text.

Although the Sceptics destroyed the dogmatism of their predecessors, they did not substitute any dogmatism of their own in its place. The nature of their scepticism is happily characterized by Sextus in his comparison of them with Democritus and Protagoras. Democritus had insisted on the uncertainty of sense-knowledge; but he concluded therefrom that objects had no qualities at all resembling those known to us through sensation. The Sceptics contented themselves with pointing out the uncertainty, but did not pronounce decisively whether the qualities existed objectively or not.

Protagoras also insisted on the uncertainty, and declared man to be the measure of truth. He supposed that there was a constant relation between the transformations of matter and those of sensation; but these suppositions he affirmed dogmatically; to the Sceptic they were uncertain.

This general incertitude often betrayed the Sceptics into ludicrous dilemmas, of which many specimens have been preserved. Thus they said, 'We assert nothing—no, not even that we assert nothing.' But if the reader wishes to see this distinction between a thing *seeming* and a thing *being*, ridiculed with a truly comic gusto, he should turn to Molière's *Mariage Forcé*, act i. sc. 8. Such follies form no portion of our subject, and we leave them with some pleasure to direct our attention to more worthy efforts of human ingenuity.

CHAPTER II.

THE EPICUREANS.

§ I. EPICURUS.

THE Epicureans are condemned in their names. We before noticed how the meaning attached to the name of Sophist inadvertently gives a bias to every judgment of the School, and renders it extremely difficult to conceive the members of that School otherwise than as shameless rogues. Equally difficult is it to shake off the influence of association with respect to the Epicureans; although historians are now pretty well agreed in believing Epicurus to have been a man of pure and virtuous life, and one whose doctrines were moderate and really inculcating abstemiousness.

Epicurus was born Ol. 109 (B.C. 342), at Samos, according to some; at Gargettus, in the vicinity of Athens, according to others. His parents were poor, his father a teacher of grammar. At a very early age, he tells us, his philosophical career began: so early as his thirteenth year. But we must not misunderstand this statement. He dates his career from those first questionings which occupy and perplex most young minds, especially those of any superior capacity. He doubtless refers to that period when, boy-like, he puzzled his teacher with a question beyond that teacher's power. Hearing the verse of Hesiod wherein all things are said to arise from Chaos, Epicurus asked, 'And whence came Chaos?'

'Whence came Chaos?' Is not this the sort of question to occupy the active mind of a boy? Is it not by such questions that we are all led into philosophy? To philosophy he was referred for an explanation. The writings of Democritus fell in his way, and were eagerly studied; the writings of others followed; and, his vocation being fixed, he sought instruction from many masters. But from all these masters he could gain no solid convictions. They gave him hints; and working upon the materials they furnished, he produced a system of his own, by which we presume he justified his claim to being self-taught.

His early years were agitated and unsettled. He visited Athens at eighteen, but remained there only one year. He then passed to Colophon, Mitylene, and Lampsacus. He returned to Athens in his six-and-thirtieth year, and there opened a school, over which he presided till his death, Ol. 127 (B.C. 272).

The place he chose for his school was the famous Garden, a spot pleasantly typical of his doctrine. The Platonists had their Academic Grove; the Aristotelians walked along the Lyceum; the Cynics growled in the Cynosarges; the Stoics occupied the Porch; and the Epicureans had their Garden.

Here, in the tranquil Garden, in the society of his friends, he passed a peaceful life of speculation and enjoyment. The friendship which existed amongst them is well known. In a time of general scarcity and famine they contributed to each other's support, showing that the Pythagorean notion of community of goods was unnecessary amongst friends, who could confide in each other. At the entrance of the Garden they placed this inscription: 'The hospitable keeper of this mansion, where you will find pleasure the highest good, will present you liberally with barley-cakes and water fresh from the spring. The gardens will not provoke your appetite by artificial dainties, but satisfy it with natural supplies. Will you not be well entertained?'

The Garden has often been called a sty; and the name of Epicurean has become the designation of a sensualist. But, in spite of his numerous assailants, the character of Epicurus has been rescued from contempt, both by ancient and by modern critics. Diogenes Laertius, who gives some of the accusations in detail, easily answers them by an appeal to facts; and modern writers have been at no loss to discover the motive of the ancient calumnies, which mostly proceeded from the Stoics. A doctrine like that of Epicurus would, at all times, lend itself to gross misrepresentation; but in an epoch like that in which it appeared, and contrasted with a doctrine so fiercely opposed to it as the doctrine of the Stoics, we cannot wonder if the bitterness of opposition translated itself into calumny. It is one of the commonest results of speculative differences to make us attribute to our opponent's opinions the consequences which *we* deduce from them, as if they were indubitably the consequences he deduces for himself. Our opinions are conducive to sound morality: of *that* we are convinced; and being so convinced, it is natural for us to believe that contrary opinions must be immoral. Our opponent holds contrary, *ergo* immoral opinions; and we proclaim his immorality as an unquestionable fact. In this, however, there is a slight forgetfulness, namely, that our opponent occupies exactly similar ground, and what we think of him, he thinks of us.

The Stoics had an ineffable contempt for the weakness and effeminacy of the Epicureans. The Epicureans had an ineffable contempt for the spasmodic rigidity and unnatural exaggeration of the Stoics. They libelled each other; but the libels against the Epicureans have met with more general credit than those against the Stoics, from the more imposing character of the latter, both in their actions and doctrines.

Epicurus is said to have been the most voluminous of all Greek Philosophers, except Chrysippus; and although none of these works are extant, yet so many fragments are preserved here and there, and there is such ample testimony as to his opinions, that there are few writers of whose doctrine we can speak with greater certainty; the more so as it does not in itself present any difficulties of comprehension.

Nothing can be more unlike Plato and Aristotle than Epicurus; and this difference may be characterized at the outset by their fundamental difference in the conception of

Philosophy, which Epicurus regarded as the Art of Life, and not the Art of Truth. Philosophy, he said, was the power (ἐνέργεια) by which Reason conducted man to happiness. The investigations of Philosophy he despised: they were not only uncertain, but contributed nothing towards happiness; and of course Logic, the instrument of Philosophy, found no favour in his sight. His system was, therefore, only another form of Scepticism, consequent on his dissatisfaction with previous systems. Socrates had taught men to regard their own nature as the great object of investigation; but man does not interrogate his own nature out of simple curiosity, or for simple erudition: he studies his nature in order that he may improve it; he learns the extent of his capacities in order that he may properly direct them. The aim, therefore, of all such inquiries must be Happiness. And what constitutes Happiness? Upon this point systems differ: all profess to teach the road to Happiness, and all point out divergent roads. There can be little dispute as to what is Happiness, but infinite disputes as to the way of securing it.* In the Cyrenaic and Cynic Schools we saw this question leading to very opposite results; and the battle we are now to see renewed on similar ground between the Epicureans and the Stoics.

Epicurus, like Aristippus, declared that Pleasure constituted Happiness; all animals instinctively pursue it, and as instinctively avoid Pain. Man should do deliberately that which animals do instinctively. Every Pleasure is in itself good; but, in comparison with another, it may become an evil. The Philosopher differs from the common man in this: That while they both seek Pleasure, the former knows how to forego certain enjoyments which will cause pain and vexation hereafter; whereas the common man seeks only the immediate enjoyment. The Philosopher's art enables him to foresee what will be the result of his acts; and, so foreseeing, he will not only avoid those enjoyments which occasion grief, but know how to endure those pains from which surpassing pleasure will result.

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* At a meeting of Socialists in London to discuss in a friendly way the means of reforming the world, M. Pierre Leroux rose and addressed his brethren thus: '*Nous voulons arriver au Paradis, n'est-ce pas? n'est-ce pas? Eh bien! il ne s'agit que d'y arriver! Voilà!*'

True happiness, then, is not the enjoyment of the moment, but the enjoyment of the whole life. We must not seek to intensify, but to equalize: not debauchery to-day and satiety to-morrow, but equable enjoyment all the year round. No life can be pleasant except a virtuous life; and the pleasures of the body, although not to be despised, are insignificant when compared with those of the soul. The former are but momentary; the latter embrace both the past and future. Hence the golden rule of Temperance. Epicurus not only insisted on the necessity of moderation for continued enjoyment, he also slighted, and somewhat scorned, all exquisite indulgences. He fed moderately and plainly. Without interdicting luxuries, he saw that Pleasure was purer and more enduring if luxuries were dispensed with. This is the ground upon which Cynics and Stoics built their own exaggerated systems. They also saw that simplicity was preferable to luxury; but they pushed their notion too far. Contentedness with a little, Epicurus regarded as a great good; and he said, wealth consisted not in having great possessions, but in having small wants. He did not limit man to the fewest possible enjoyments: on the contrary, he wished him in all ways to multiply them; but he wished him to be able to live upon little, both as a preventive against ill-fortune, and as an enhancement of rare enjoyments. The man who lives plainly has no fear of poverty, and is better able to enjoy exquisite pleasures.

Virtue rests upon Free Will and Reason, which are inseparable: since, without Free Will our Reason would be passive, and without Reason our Free Will would be blind. Everything, therefore, in human actions which is virtuous or vicious depends on man's *knowing* and *willing*. Philosophical education consists in accustoming the Mind to judge accurately, and the Will to choose manfully.

From this slight outline of his Ethical doctrine may be seen how readily it furnished arguments both to assailants and to defenders. We may also notice its vagueness and elasticity, which would enable many minds to adapt it to their virtues or to their vices. The luxurious would see in it only an exhortation to their own vices; the temperate would see in it a scientific exposition of temperance.

Epicureanism, in leading man to a correct appreciation of the moral end of his existence, in showing him how to be truly happy, has to combat with many obstructions which hide from him the real road of life. These obstructions are his illusions, his prejudices, his errors, his ignorance. This ignorance is of two kinds: first, ignorance of the laws of the external world, which creates absurd superstitions, and troubles the soul with false fears and false hopes; hence the necessity of some knowledge of Physics. The second kind of ignorance is that of the nature of man; hence the necessity of the Epicurean Logic called *Canonic*, which is a collection of rules respecting human reason and its application.

The Epicurean psychology and physics were derived from the Democritean. The atoms of which the universe is formed are supposed to be constantly throwing off some of their parts, *ἀποῤῥοαί*: and these, in contact with the senses, produce sensation, *αἴσθησις*. But Epicurus did not maintain that these *ἀποῤῥοαί* were *images* of the atoms; he believed them to have a certain resemblance to their atoms, but was unable to point out where, and in how far this resemblance exists. Every sensation must be true as a sensation; and, as such, it can neither be proved nor contradicted; it is *ἄλογος*. The sensations of the insane and the dreaming are also true; and, although there is a difference between their sensations and those of sane and waking men, yet Epicurus confessed himself unable to determine in what the difference consists. Sensations however do not alone constitute knowledge; man has also the faculty of conception, *πρόληψις*, which arises from the repeated iteration of sensation: it is recollection of various sensations; or, as Aristotle would say, the general idea gathered from particular sensations. It is from these conceptions that the general ideas are formed, and it is in these general ideas that error resides. A sensation may be considered either in relation to its object, or in relation to him who experiences it; in the latter case it is agreeable or disagreeable, and renders the sentiments, *τὰ πάθη*, the basis of all morality.

With such a basis, we may readily anticipate the nature of the superstructure. If agreeable and disagreeable sensations are the origin of all moral phenomena, there can be no other moral rule than to seek the agreeable and to avoid the disagreeable; and whatever is pleasant becomes the great object of existence.

The Physics of Epicurus are so similar to the Physics of Democritus that we need not occupy our space with them.

On reviewing the whole doctrine of Epicurus, we find in it that scepticism which the imperfect Philosophy of the day necessarily brought to many minds, in many different shapes; and the consequence of that scepticism was the effort to find a refuge in Morals, and the attempt to construct Ethics on a philosophic basis. The attempt failed because the basis was not broad enough; but the attempt itself is worthy of notice, as characteristic of the whole Socratic movement; for, although the Socratic Method was an attempt at reconstructing Philosophy, yet that reconstruction itself was only attempted with a view to morals. Socrates was the first to bring Philosophy down from the clouds; he was the first to make it the basis of Morality, and in one shape or other all his followers and all the schools that issued from them, kept this view present to their minds. The Epicureans are therefore to be regarded as men who ventured on a solution of the great problem, and failed because they only saw a part of the truth.

CHAPTER III.

THE STOICS.

§ I. ZENO.

THE Stoics were a large sect, and of its members so many have been celebrated, that a separate work would be needed to chronicle them all. From Zeno, the founder, down to Brutus and Marcus Antoninus, the sect embraces many Greek and Roman worthies, and not a few solemn pretenders. Some of these we would willingly introduce; but we are forced to confine ourselves to one type; and the one we select is Zeno.

He was born at Citium, a small city in the island of Cyprus, of Phœnician origin, but inhabited by Greeks. The date of his birth is uncertain. His father was a merchant, in which trade he himself engaged, until his father, after a voyage to Athens, brought home some works of Socratic philosophers; these Zeno studied with eagerness and rapture, and determined his vocation.

When about thirty, he undertook a voyage both of interest and pleasure, to Athens, the great mart both for trade and philosophy. Shipwrecked on the coast, he lost the whole of his valuable cargo of Phœnician purple; and, thus reduced to poverty, he willingly embraced the doctrine of the Cynics, whose ostentatious display of poverty had captivated many minds.

There is an anecdote of his having one day read Xenophon's *Memorabilia*, in a bookseller's shop, with such delight that he asked where such men were to be met with. At that moment Crates the Cynic passed by: the bookseller pointed him out to Zeno, and bade him follow Crates. He did so; and he became a disciple. But he could not long remain a disciple. The gross manners of the Cynics, so far removed from true simplicity, and their speculative incapacity, soon caused him to seek a master elsewhere. Stilpo, of Megara, became his next instructor; and from him he learned the art of disputation, which he subsequently practised with such success.

But the Megaric doctrine was too meagre for him. He was glad to learn from Stilpo; but there were things which Stilpo could not teach. He turned, therefore, to the expositors of Plato: Xenocrates and Polemo. In the philosophy of Plato there is, as before remarked, a germ of Stoicism; but there is also much that contradicts Stoicism, and so, we presume, Zeno grew discontented with that also.

After twenty years of laborious study in these various schools, he opened one for himself, wherein to teach the result of all these inquiries. The spot chosen was the Stoa, or Porch, which had once been the resort of the Poets, and was decorated with the pictures of Polygnotus. From this Stoa the school derived its name.

As a man, Zeno appears deserving of the highest respect. Although sharing the doctrines of the Cynics, he did not share their grossness, their insolence, or their affectation. In person he was tall and slender; and although of a weakly constitution, he lived to a great age, being rigidly abstemious, feeding mainly upon figs, bread, and honey. His brow was furrowed with thought; and this gave a tinge of severity to his aspect, which accorded with the austerity of his doctrines. So honoured and respected was he by the Athenians, that they entrusted to him the keys of the citadel; and when he died they erected to his memory a statue of brass. His death is thus recorded:—In his ninety-eighth year, as he was stepping out of his school, he fell and broke his finger. He was so affected at the consciousness of his infirmity that, striking the earth, he exclaimed, 'Why am I thus importuned? Earth, I obey thy summons!' He went home and strangled himself.

In the history of humanity there are periods when society seems fast dissolving; when ancient creeds have lost their majesty, and new creeds want disciples: when the onlooker sees the fabric tottering, beneath which his fellow-men are crowded either in sullen despair or in blaspheming levity; and, seeing this, he feels that there is safety still possible, if men will but be bold; he raises a voice of warning, and a voice of exhortation; he bids them behold their peril and tremble, behold their salvation and resolve. He preaches to them a doctrine they had been unused to hear, or, hearing it, unused to heed; and by the mere force of his own intense conviction he gathers round him some believers who are saved. If the social anarchy be not too widely spread, he saves his country by directing its energies in a new channel; if the country's doom is sealed, he makes a gallant effort, though a vain one, and 'leaves a spotless name to after-times.'

Such a man was Zeno. Greece was fallen; but hope still remained. A wide-spread disease was fast eating out the vigour of its life: Scepticism, Indifference, Sensuality, Epicurean softness were only counteracted by the aspiring but vague works of Plato, or the vast but abstruse system of Aristotle. Greek civilization was fast falling to decay. A little time and Rome, the she-wolf's nursling, would usurp the place which Greece had once so proudly held—the place of vanguard of European civilization. Rome, the mighty, would take from the feeble hands of Greece the trust she was no longer worthy to hold. There was a presentiment of Rome in Zeno's breast. In him the manly energy and stern simplicity which were to conquer the world; in him the deep reverence for moral worth, which was the glory of Rome, before, intoxicated with success, she sought to ape the literary and philosophical glory of old Hellas. Zeno the Stoic had a Roman spirit; and this is the reason why so many noble Romans became his disciples: he had deciphered the wants of their spiritual nature.

Alarmed at the scepticism which seemed inevitably following speculations of a metaphysical kind, Zeno, like Epicurus, fixed his thoughts principally upon Morals. His philosophy boasted of being eminently practical, and connected with the daily practices of life. But, for this purpose, the philosopher must not regard pleasure so much as Virtue: nor does Virtue consist in a life of contemplation and speculation, but in a life of activity; for what is Virtue?—Virtue is manhood. And what are the attributes of man? Are they not obviously the attributes of an *active* as well as of a *speculative* being? and can that be Virtue which excludes or neglects man's activity? Man, O Plato, Man, O Aristotle, was not made for speculation only; wisdom is not his only pursuit. Man, O Epicurus, was not made for enjoyment only; he was made also to *do* somewhat, and to *be* somewhat. Philosophy?—It is a great thing; but it is not all. Pleasure?—It is a slight thing; and, were it greater, could not embrace man's entire activity.

The aim, then, of man's existence is neither to be wise nor to enjoy, but to be virtuous—to realize his manhood. To this aim, Philosophy is a means, and Pleasure may also be one; but they are both subordinate. Before we can be taught to lead a virtuous life, we must be taught what virtue is. Zeno thought, with Socrates, that Virtue was the knowledge of Good; and that Vice was nothing but error. If to *know* the good were tantamount to the pursuit and practice of it, then was the teacher's task easily defined: he had to explain the nature of human knowledge, and to explain the relations of man to the universe.

Thus, as with Socrates, does Morality find itself inseparably connected with Philosophy; and more especially with psychology. A brief outline of this psychology becomes therefore necessary as an introduction to the Stoical Morality.

Zeno rejected the Platonic theory of knowledge, and accepted, though with some modifications, the Aristotelian theory. 'Reminiscence' and 'Ideas' were to him mere words. Ideas he regarded as the universal notions formed by the mind from a comparison of particulars. Sense furnished all the materials of knowledge; Reason was the plastic instrument whereby these materials were fashioned. But those who maintain that Sense furnishes us the materials of knowledge are hampered with this difficulty: By what process does Sense perceive? What relation is there between Sense and the sensible Thing? What proof have we of those sensations being conformable with the Things? This difficulty is a serious one, and early occupied speculators. Indeed, this question may be pronounced the vital question of all philosophy; upon its solution depends to a great extent the solution of all other questions. Let us state it more clearly in an illustration.

At the distance of fifty yards you descry a tower: it is round. What do you mean by saying, It is round? You mean that the impression made upon your sense of sight is an impression similar to that made by some other objects, such as trees, which you, and all men, call round. Now, on the supposition that you never approached nearer that tower, you would always believe it to *be* round, because it *appeared* to be so. But, as you are enabled to approach it, and as you *then* find that the tower is square, and not round, you begin to examine into this difference. It appeared to be round at that distance; and yet you say it really *is* square. A little knowledge of optics seems to explain the difference; but does not. At fifty yards, you say, it appears to be round; but it really is square. At fifty yards, we reply, it appears to be round, and at one yard it appears to be square: it *is* neither: both round and square are conceptions of the mind, not attributes of things: they have a subjective, not an objective existence.

Thus far the ancient sceptics penetrated; but, seeing herein an utter destruction of all certainty in sense-knowledge, and compelled to admit that Sense was the only source of knowledge, they declared all knowledge a deceit. The discovery of the real issue whence to escape this dilemma—the recognition of the uncertainty of sense-knowledge, and the reconciliation of that theory with the natural wants of the speculative mind by the twofold admission of the relativity of all knowledge and of relative certainty—reconciling scepticism with belief, and both with reason, was the work of after-times.

Those who believed that the senses gave true reports of the Things which affected them, were driven to invent some hypothesis explanatory of the relation subsisting between the Object and the Subject, the Thing and the Sense. We have seen how *eidola*, airy images affluent from Things, were invented to establish a direct connection between the Subject and the Object. Zeno, acutely enough, saw that an image detaching itself in an airy form from the Object, could only represent the superficies of that Object, even if it represented it correctly. In this way the hypothesis of *eidola* was shown to be no more than an hypothesis to explain Appearances; whereas the real question is not, How do we perceive Appearances? but how do we perceive Objects? If we only perceive their superficies, our knowledge is only a knowledge of phenomena, and we fall into the hands of the Sceptics.

Zeno saw the extent of the difficulty, and tried to obviate it. But his hypothesis, though more comprehensive, was equally feeble in its foundation. He assumed that Sense *could* penetrate beneath Appearance, and perceive Substance itself.

As considerable confusion exists on this point, we shall confine ourselves to the testimony of Sextus Empiricus, the most satisfactory of all. In his book directed against the Logicians, he tells us, 'the Stoics held that there was one criterion of truth for man, and it was what they called the Cataleptic Phantasm' (*τὴν καταληπτικὴν φαντασίαν*, *i.e.* the Sensuous Apprehension). We must first understand what they meant by the Phantasm or Appearance. It was, they said, an impression on the mind (*τύπωσις ἐν ψυχῇ*). But from this point commence their differences; for Cleánthus understood, by this impression, an impression similar to that made by the signet ring upon wax, *τοῦ κηροῦ τύπωσιν*. Chrysippus thought this absurd; for, said he, seeing that thought conceives many objects at the same time, the soul must upon that hypothesis receive many impressions of figures. He thought that

Zeno meant by *impression* nothing more than a *modification* (ἑτεροίωσις): likening the soul to the air, which when many voices sound simultaneously, receives simultaneously the various alterations, but without confounding them. Thus the Soul unites several perceptions which correspond with their several objects.'

This is extremely ingenious, and the indication of Sensation as a modification of the Soul, opens a shaft deep down into the dark region of psychology. But, if it lets in some of the light of day, it also brings into notice a new obstacle. This soul, which is modified, does it not also in its turn exercise an influence? If wine be poured into water, it modifies the water; but the water also modifies the wine. There can be no action without reaction. If a stone is presented to my sight, it modifies my soul; but does the influence of the stone remain unmodified?—No; it receives from me certain attributes, certain form, colour, taste, weight, &c.; these my soul bestows on it; in itself it does not possess them.

Thus is doubt again spread over the whole question. The soul modifying the object in sensation, can it rely upon the truth of the sensation thus produced? Has not the wine become watery, no less than the water vinous? These consequences, however, Zeno did not foresee. He was intent upon proving that the soul really apprehended objects, not as *eidola*, not as wax receives the impression of a seal, but in absolute truth. Let us continue to borrow from Sextus Empiricus.

The Phantasm, or Appearance, which causes that Modification of the Soul which we name Sensation, is also understood by the Stoics as we understand ideas; and in this general sense, they say that there were three kinds of Phantasms: those that were probable, those that were improbable, and those that were neither one nor the other. The first are those that cause a slight and equable motion in the soul: such as those which inform us that it is day. The second are those which contradict our reason: such as if one were to say during the day-time, 'Now the sun is not above the earth;' or, during the night-time, 'Now it is day.' The third are those, the truth of which it is impossible to verify: such as this, 'The number of the stars is even;' or, 'the number is odd.'

Phantasms, when probable, are true or false, or both true and false at the same time, or neither true nor false. They are true when they can be truly affirmed of anything; false if they are wrongly affirmed, such as when one believes an oar dipped in the water to be broken, because it appears so. When Orestes, in his madness, mistook Electra for a Fury, he had a Phantasm both true and false: true, inasmuch as he saw something, viz. Electra; false, inasmuch as Electra was not a Fury.

Of true Phantasms, some are cataleptic (apprehensive), and others non-cataleptic. The latter are such as arise from disease or perturbation of the mind: as for instance the innumerable Phantasms produced in frenzy and hypochondria. The cataleptic Phantasm is that which is impressed by an object which exists, which is a copy of that object, and can be produced by no other object. Perception is elsewhere said to be a sort of light, which manifests itself at the same time that it lights up the object from which it is derived.

Zeno distinctly saw the weakness of the theories proposed by others; he failed however in establishing any better theory in their place. Sextus Empiricus may well call the Stoical doctrine vague and undecided. How are we to distinguish the true from the false in appearances? Above all, how are we to learn whether an impression exactly coincides with the object? This is the main problem, and Zeno pretends to solve it by a circular argument. Thus: given the problem, how are we to distinguish the true impressions from the false impressions? the solution offered is, by ascertaining which of the impressions coincide with the real objects: in other words, by distinguishing the true impressions from the false.

Having a perception of an object is not knowledge: for knowledge, it is necessary that reason should assent. Perception comes from without; assent from within: it is the free exercise of man's reason. Science is composed of perceptions so solidly established that no argumentation can shake them. Perceptions not thus established only constitute Opinion.

This is making short work with difficulties, it must be confessed; but the Stoics were eager to oppose something against the Scepticism which characterized the age; and, in their eagerness to build, they did not sufficiently secure their foundations. Universal doubt they felt to be impossible. Man must occasionally assent, and that too in an absolute manner. There are perceptions which carry with them irresistible conviction. There would be no possibility of action unless there were some certain truth. Where then is conviction to stop? That all our perceptions are not correct, every one is willing to admit. But which are exact, and which are inexact? What *criterion* have we? The criterion we possess is Evidence. 'Nothing can be clearer than evidence,' they said; 'and, being so clear, it needs no definition.' This was precisely what it *did* want; but the Stoics could not give it.

In truth, the Stoics, combating the Scepticism of their age, were reduced to the same strait as Reid, Beattie, and Hutcheson, combating the Scepticism of Hume: reduced to give up Philosophy, and to find refuge in Common-Sense. The battle fought by the Stoics is very analogous to the battle fought by the Scotch philosophers, in the ground occupied, in the instruments employed, in the enemy attacked, and the object to be gained. They both fought for Morality, which they thought endangered.

We shall subsequently have to consider the Common-Sense theory: enough if we now call attention to the curious *ignoratio elenchi*—the curious misconception of the real force of the enemy, and the utter helplessness of their own position, which the Common-Sense philosophers displayed. The Sceptics had made an irresistible onslaught upon the two fortresses of Perception and Reason. They showed Perception to be based upon Appearance; and Appearance could not be Certainty. They showed also that Reason was unable to distinguish between Appearance and Certainty, because, in the first place, it had nothing but Phenomena (Appearances) to build upon; and, in the second place, because there is no criterion to apply to Reason itself. Having gained this victory, they proclaim Philosophy no longer existent. Whereupon the Stoics valorously rise, and, taking their stand upon Common-Sense, believe they rout the forces of the Sceptics; believe they retake the lost fortresses by declaring that perceptions are true as well as false, and that you may distinguish the true from the false, by—distinguishing them: and that Reason has its criterion in Evidence, which requires no criterion, it is so clear. This seems pretty much the same as if the French were to invade Great Britain; possess themselves of London, Edinburgh, and Dublin, declare England the subject of France, and patriots were then to declare that the French were to be driven home again by a party of volunteers taking their stand upon Hampstead Heath, displaying the banners of England, and with loud alarums proclaiming the invaders defeated.

But it is time to consider the ethical doctrines of the Stoics; and to do this effectually we must glance at their conception of the Deity. There are two elements in Nature. The first is *ὕλη πρώτη*, or primordial matter; the passive element from which things are formed. The second is the active element, which forms things out of matter: Reason, Destiny (*είμαρμένη*), God. The divine Reason operating upon matter bestows upon it the laws which govern it, laws which the Stoics called *λόγοι σπερματικοί*, or productive causes. God is the Reason of the world.

With this speculative doctrine it is easy to connect their practical doctrine. Their ethics are easily to be deduced from their theology. If Reason is the great creative law, to live conformably with Reason must be the practical moral law. If the universe be subject to a general law, every part of that universe must also be duly subordinate to it. The consequence is clear: there is but one formula for Morals, and that is, 'Live harmoniously with Nature,' ὁμολογουμένως τῇ φύσει ζῆν.

This is easily said. An anxious disciple might however desire greater precision, and ask, Is it universal nature, or is it the particular nature of man, that I am to live in unison with? Cleanthes taught the former; Chrysippus the latter; or, we should rather say, taught that both individual and universal nature should be understood by the formula. And this appears to have been the sense in which it was usually interpreted.

The distinctive tendency of the formula cannot be mistaken: it is to reduce everything to Reason, which, as it has supremacy in creation, must also have supremacy in man. This is also the Platonic conception. It makes Logic the rule of life; and assumes that there is nothing in man's mind which cannot be reduced within the limits of Logic; assumes that man is all intellect. It follows, that everything which interferes with a purely intellectual existence is to be eliminated as dangerous. The pleasures and the pains of the body are to be despised: only the pleasures and the pains of the intellect are worthy to occupy man. By his passions he is made a slave; by his intellect he is free. His senses are passive; his intellect is active. It is his duty therefore to surmount and despise his passions and his senses, that he may be free, active, virtuous.

We have here the doctrine of the Cynics, somewhat purified, but fundamentally the same; we have here also the anticipation of Rome; the forethought of that which was subsequently realised in act. Rome was the fit theatre of Stoicism, because Rome was peopled with soldiers: these soldiers had their contempt of death formed in perpetual campaigns. How little the Romans regarded the life of man their history shows. The gladiatorial combats, brutal and relentless, must have hardened the minds of all spectators; and there were no softening influences to counteract them. How different the Greeks! They did not pretend to despise this beautiful life; they did not affect to be above humanity. Life was precious, and they treasured it; treasured it not with petty fear, but with noble ingenuousness. They loved life, and wept on quitting it; and they wept without shame. They loved life, and they said so. When the time came for them to risk it, or to give it for their country, or their honour,—when something they prized higher was to be gained by the sacrifice,—then they died unflinchingly. The tears shed by Achilles and Ulysses did not unman them: these heroes fought terribly, as they loved tenderly. Philoctetes, in agony, howls like a wild beast, because he feels pain, and feels no shame in expressing it. But these shrieks have not softened him: he is still the same stern, implacable Philoctetes.

The Stoics, in their dread of becoming effeminate, became marble. They despised pain; they despised death. To be above pain was thought manly. They did not see that, in this respect, instead of being above Humanity, they sank below it. If it is a condition of our human organization to be susceptible of pain, it is only affectation to conceal the expression of that pain. Could silence stifle pain, it were well; but to stifle the cry, is not to stifle the feeling; and to have a feeling, yet affect not to have it, is pitiful. The savage soon learns that Philosophy; the civilized man is superior to it. You receive a blow, and you do not wince? so much of heroism is displayed by a stone. You are face to face with Death, and you have no regrets? then you are unworthy of life. Real heroism feels the pain it conquers, and loves the life it surrenders in a noble cause.

As a reaction against effeminacy, Stoicism may be applauded; as a doctrine, it is one-sided. It ends in apathy and egoism. Apathy, indeed, was considered by the Stoics as the highest condition of Humanity; whereas, in truth, it is the lowest.

CHAPTER IV.

THE NEW ACADEMY.

§ I. ARCESILAUS AND CARNEADES.

THE New Academy would solicit our attention, were it only for the celebrity bestowed on it by Cicero and Horace; but it has other and higher points of interest than those of literary curiosity. The combat of which it was the theatre was, and is, of singular importance. The questions connected with it are those vital questions respecting the origin and certitude of human knowledge, which so long have occupied the ingenuity of thinkers; and the consequences which flow from either solution of the problem are of the utmost importance.

The Stoics endeavoured to establish the certitude of human knowledge, in order that they might establish the truth of moral principles. They attacked the doctrines of the Sceptics, and believed they triumphed by bringing forward their own doctrine of Common-Sense. But the New Academicians had other arguments to offer. They too were Sceptics, although their scepticism differed from that of the Pyrrhonists. The nature of this difference Sextus Empericus has noted. 'Many persons,' says he, 'confound the Philosophy of the Academy with that of the Sceptics. But although the disciples of the New Academy declare that all things are incomprehensible; yet they are distinguished from the Pyrrhonists in this very dogmatism; they affirm that all things are incomprehensible—the Sceptics do not affirm even that. Moreover, the Sceptics consider all perceptions perfectly equal as to the faithfulness of their testimony; the

Academicians distinguish between probable and improbable perceptions: the first they class under various heads. There are some, they say, which are merely probable, others which are also confirmed by reflection, others which are subject to no doubt. Assent is of two kinds: simple assent which the mind yields without repugnance as without desire, such as that of a child following its master; and the assent which follows upon conviction and reflection. The Sceptics admitted the former kind; the Academicians the latter.'

These differences are of no great moment; but in the history of sects we find every variation invested with its degree of importance; and we can understand the pertinacity with which the Academicians distinguished themselves from the Sceptics, even on such slight grounds as the above.

In treating of the Academicians we are forced to follow the plan pursued with the Sceptics, namely to consider the doctrines of the whole sect, rather than to particularize the share of each individual member. The Middle Academy and the New Academy we thus unite in one; although the ancients drew a distinction between them, it is difficult for moderns to do so. Arcesilaus and Carneades, therefore, shall be our types.

Arcesilaus was born at Pitane in the 116th Olympiad (B.C. 316). He was early taught mathematics and rhetoric, became the pupil of Theophrastus, afterwards of Aristotle, and finally of Polemo the Platonist. In this last school he was contemporary with Zeno, and probably there began that antagonism which was so remarkable in their subsequent career. On the death of Crates, Arcesilaus filled the Academic chair, and filled it with great ability and success. His fascinating manners won him general regard. He was learned and sweet-tempered, and generous to a fault. Visiting a sick friend, who, he saw, was suffering from privation, he slipped, unobserved, a purse of gold underneath the sick man's pillow. When the attendant discovered it, the sick man said with a smile, 'This is one of Arcesilaus's generous frauds.'

He was of a somewhat luxurious temper, but he lived till the age of seventy-five, when he killed himself by hard drinking.

Carneades, the most illustrious of the Academicians, was born at Cyrene, in Africa, Ol. 141, 4 (B.C. 213). He was a pupil of Diogenes the Stoic, who taught him the subtleties of disputation. This made him sometimes exclaim in the course of a debate: 'If I have reasoned rightly, you are wrong; if not, O Diogenes, return me the *mina* I paid you for my lessons.' On leaving Diogenes he became the pupil of Hegesinus, who then held the Academic chair; by him he was instructed in the sceptical principles of the Academy, and on his death he succeeded to his chair. He also diligently studied the voluminous writings of Chrysippus. These were of great value to him, exercising his subtlety, and trying the temper of his own metal. He owed so much to this opponent that he used to say, 'Had there not been a Chrysippus, I should not be what I am.' There are two kinds of writers: those who directly instruct us in sound knowledge, and those who indirectly lead us to the truth by the very opposition they raise against their views. Next to exact knowledge, there is nothing so instructive as exact error: an error clearly stated, and presented in somewhat the same way as it at first presented itself to the mind which now upholds it, enables us to see not only that it is an error, but by what illusion it deceived the upholder; it thus becomes fertile in results. It is better than direct instruction: better, because the learner's mind is called into full activity, and apprehends the truth for itself, instead of passively assenting to it.

Carneades was justified in his praise of Chrysippus. He felt how much he owed to his antagonist. He felt that to him he owed a clear conception of the Stoical error, and a clear conviction of the truth of the Academic doctrine; and owed also no inconsiderable portion of that readiness and subtlety which marked him out amongst his countrymen as a fitting Ambassador to be sent to Rome.

Carneades in Rome—Scepticism in the Stoic city—presents an interesting picture. The Romans crowded round him, fascinated by his subtlety and eloquence. Before Galba—before Cato the Censor—he harangued with marvellous unction in praise of Justice; and the hard brow of the grim Stoic softened; an approving smile played over those thin firm lips. But the next day the brilliant orator undertook to exhibit the uncertainty of all human knowledge; and, as a proof, he refuted all the arguments with which the day before he had supported Justice. He spoke against Justice as convincingly as he had spoken for it. The brow of Cato darkened again, and with a keen instinct of the dangers of such ingenuity operating upon the Roman youth, he persuaded the Senate to send back the philosophers to their own country.

Carneades returned to Athens, and there renewed his contest with the Stoics. He taught with great applause, and lived to the advanced age of ninety.

That the Academicians should have gone over to scepticism is not strange: indeed, as we have said, scepticism was the inevitable result of the tendencies of speculation; and the only sect which did not accept it was forced to find a refuge in Common-Sense: that is to say, was forced to find refuge in the abdication of Philosophy, which abdication was in itself a species of scepticism. But it may seem strange that the New Academy should issue from Plato; it may seem strange that Arcesilaus should be a continuer and a warm admirer of Plato. The ancients themselves, according to Sextus Empiricus, were divided amongst each other respecting Plato's real doctrine; some considering him a sceptic, others a dogmatist. We have already explained the cause of this difference of opinion, and have shown how very little consistency and precision there is in the opinions of Plato upon all subjects except Method. Scepticism, therefore, might very easily result from a study of his writings. But this is not all. Plato's attack upon the theories of his predecessors, which were grounded upon sense-knowledge, is constant, triumphant. The dialogue of the *Theætetus*, which is devoted to the subject of Philosophy, is an exposition of the incapacity of sense to furnish materials for Philosophy. All that sense can furnish the materials for is Opinion, and Opinion, as he frequently declares, even when it is Right Opinion, never can be Philosophy. Plato, in short, destroyed all the old foundations upon which theories had been constructed. He cleared the ground before commencing his own work. By this means he obviated the attacks of the Sophists, and yet refused to sustain the onus of errors which his predecessors had accumulated. The Sophists saw the weakness of the old belief, and attacked it. Having reduced it to ruins, they declared themselves triumphant. Plato appeared, and admitted the fact of the old fortress being in ruins, and its deserving to be so; but he denied that the city of Truth was taken. 'Expend,' said he, 'your wrath and skill in battering down such fortresses; I will assist you; for I too declare them useless. But the real fortress you have not yet approached; it is situate on far higher ground.' Sense-knowledge and Opinion being thus set aside, the stronghold of Philosophy was the Ideal theory: in it Plato found refuge from the Sophists. Aristotle came and destroyed that theory. What then remained? Scepticism.

Arcesilaus admitted, with Plato, the uncertainty of Opinion; but he also admitted, with Aristotle, the incorrectness of the Ideal theory. He was thus reduced to scepticism. The arguments of Plato had quite destroyed the certitude of Opinion; the arguments of Aristotle had quite destroyed the Ideal theory. And thus, by refusing to accept one argument of the Platonic doctrine, Arcesilaus could from Plato's works deduce his own theory of the Incomprehensibility of all things: the *acatalepsy*.

The doctrine of acatalepsy recalls to us the Stoical doctrine of catalepsy or Apprehension, to which it is the antithesis. The Cataleptic Phantasm was the True Perception, according to the Stoics; according to the Academicians all Perceptions were *acataleptic*, *i. e.* bore no conformity to the objects perceived; or, if they did bear any conformity thereto, it could never be known.

Arcesilaus saw the weak point of the Stoical argument. Zeno pretended that there was a criterion, which decided between Science and Opinion, which decided between true and false perceptions, and this was the assent which the mind gave to the truth of certain perceptions: in other words, Common-Sense was the criterion. 'But,' said Arcesilaus, 'what is the difference between the assent of a wise man, and the assent of a madman?—There is no difference but in name.' He felt that the criterion of the Stoics was itself in need of a criterion.

Chrysippus the Stoic combated Arcesilaus, and was in turn combated by Carneades. The great question then pending was this:—

What Criterion is there of the truth of our knowledge?

The criterion must reside in Reason, in Conception, or in Sensation. It cannot reside in Reason, because Reason itself is not independent of the other two: it operates upon the materials furnished by them, and is dependent upon them. Our knowledge is derived from the senses, and every object presented to the mind must consequently have been originally presented to the senses: on their accuracy the mind must depend.

Reason cannot therefore contain within itself the desired criterion. Nor can Conception; for the same arguments apply to it. Nor can the criterion reside in Sense; because, as all admit, the senses are deceptive, and there is no perception which cannot be false? For what is Perception? Our Senses only inform us of the presence of an object in so far as they are affected by it. But what is this? Is it not *we* who are affected—*we* who are modified? Yes; and this modification reveals both itself and the object which causes it. Like light, which in showing itself, shows also the objects upon which it is thrown; like light also, it shows objects in *its own colours*. Perception is a peculiar modification of the soul. The whole problem now to solve is this:—

Does every modification of the soul exactly correspond with the external object which causes that modification?

This is a problem presented by the Academicians. They answered, but they did not solve it; they left to their adversaries the task of proving the correspondence between the object and subject.

In nowise does the Sensation correspond with the Object; in nowise does the modification correspond with the external cause, except in the relation of cause and effect. The early thinkers were well aware, that in order to attribute any certainty to sensuous knowledge, we must assume that the Senses transmit us copies of things. Democritus, who was the first to see the necessity of such an hypothesis, suggested that our Ideas were *Eidola,* or images of the objects, of an extremely airy texture, which were thrown off by the objects in the shape of effluvia, and entered the brain by the pores. Those who could not admit such an explanation substituted the hypothesis of Impressions. Ask any man, not versed in such inquiries, whether he believes his perceptions to be copies of objects,—whether he believes that the flower he sees before him exists quite independently of him, and of every other human being, and exists with the same attributes of shape, fragrance, taste, &c., his answer is sure to be in the affirmative. He will regard you as a madman if you doubt it. And yet so early as the epoch of which we are now sketching the history, thinking men had learned in somewise to see that our Perceptions were *not* copies of objects, but were simply modifications of our minds, caused by the objects. Once admit this, and sensuous knowledge is for ever pronounced not only uncertain, but necessarily so. Can each modification be a *copy* of the cause which modifies? As well ask, Is the pain, occasioned by a burn, a copy of the fire? Is it at all like the fire? Does it at all express the essence of fire? Not in the least. It only expresses one relation in which we stand to the fire; one effect upon us which fire will produce. Nevertheless fire is an object, and a burn is a sensation. The way in which we perceive the existence of the object (fire) is similar to that in which we perceive the existence of other objects: and that way is in the modifications they occasion; *i.e.* in the Sensations.

Let us take another instance. We say that we hear thunder: in other words, that we have a perception of the object called thunder. Our sensation really is of a sound, which the electrical phenomena we call thunder have caused in us, by setting the air vibrating and thus acting on the auditory nerve. Is our sensation any copy of the Phenomena? Does it in any degree express the nature of the Phenomena? No; it only expresses the effect produced in us by a certain vibration of the air.

In these cases most people will readily acquiesce; for, by a very natural confusion of ideas, whenever they speak of perceptions they mostly mean visual perceptions; because with sight the clearest knowledge is associated; because also the hypothesis of our perceptions being copies of Things is founded upon sight. The same persons who would willingly admit that pain was not a copy of the fire, nor of anything in the nature of fire, except in its effect on our nerves, would protest that the appearance of fire to the eye was the *real* appearance of the fire, all eyes apart, and quite independent of human vision. Yet if all sentient beings were at once swept from the face of the earth, the fire would have no attribute at all resembling pain; because pain is a modification, not of fire, but of a sentient being. In like manner, if all sentient beings were at once swept from the face of the earth, the fire would have no attributes at all resembling light and colour; because light and colour are modifications of the sentient being, caused by *something* external, but no more resembling its cause than the pain inflicted by an instrument resembles that instrument.

Pain and colour are modifications of the sentient being. The question at issue is, Can a modification of a sentient being be a copy of its cause? We may imagine that when we see an object our sensation is a copy of it, because we believe that the object paints itself upon the retina; and we liken perception to a mirror, in which things are reflected. It is extremely difficult to divest ourselves of this prejudice; but we may be made aware of the fallacy if we attend to those perceptions which are not visual—to the perceptions of sound, fragrance, taste, or pain. These are clearly nothing but modifications of our sentient being, *caused* by external objects, but in nowise *resembling* them. We are all agreed that the heat is not in the fire, but in us; that sweetness is not in the sugar, but in us; that fragrance is but the particles which, impinging on the olfactory nerve, cause a sensation in us. In all beings similarly constituted these things would have similar effects, would cause pain, sweetness, and fragrance; but on all other beings the effects would be different. Fire would burn paper, but not pain it; sugar would mix with water, but not give it the sensation of sweetness.

The radical error of those who believe that we perceive things *as they are*, consists in mistaking a metaphor for a fact, and believing that a mind is a mirror in which external objects are reflected. But, as Bacon finely says, 'The human understanding is like an *unequal* mirror to the rays of things, which, mixing its own nature with the nature of things, distorts and perverts them.' We attribute heat to the fire, and colour to the flower; heat and colour really being states of our consciousness, occasioned by the fire and the flower under certain conditions.

Perception is nothing more than a state of the percipient; *i.e.* a state of consciousness. This state may be occasioned by some external cause, and may be as complex as the cause is complex, but it is still nothing more than a state of consciousness—an effect produced by an adequate cause. Of every change in our sensation we are conscious, and in time we learn to give definite names and forms to the causes of these changes. But in the fact of Consciousness there is nothing beyond consciousness. In our perceptions we are conscious only of the changes which have taken place within us: we can never transcend the sphere of our own consciousness; we can never go out of ourselves, and become aware of the objects which caused those changes. All we can do is to identify certain external appearances with certain internal changes, *e.g.* to identify the appearance we name 'fire' with certain sensations we have known to follow our being placed near it. Turn the fact of Consciousness how we will, we can see nothing in it but the change of a sentient being operated by some external cause. Consciousness is no mirror of the world; it gives no faithful reflection of things as they are *per se*; it only gives a faithful report of its own modification as excited by external things.

The world, apart from our consciousness, *i.e.* the non-ego *quâ* non-ego—the world *per se*—is, in all likelihood, something utterly different from the world as we know it; for all we know of it is derived through our consciousness of what its effects are on *us*, and our consciousness is obviously only a state of ourselves, not a copy of external things.

It may be here asked, How do you infer that the world is different from what it appears to us?

The question is pertinent, and may be answered briefly. The world *per se* must be different from what it appears to us through consciousness, because to us it is only known in the relation of cause and effect. World is the cause; our consciousness the effect. But the same cause operating on some other organization would produce a very different effect. If all animals were blind, there would be no such thing as light (*i.e.* light as we know it), because light is a resultant of the operation of some unknown thing on the retina. If all animals were deaf, there would be no such thing as sound, because sound is a resultant of the operation of some unknown thing on the tympanum. If all men were without their present nervous system, there would be no such thing as pain, because pain is a resultant of the operation of some external thing on the specialized nervous system.

Light, colour, sound, taste, smell, are all states of consciousness; what they are beyond consciousness, as existences *per se*, we cannot know, we cannot imagine, because we can only conceive them *as* we know them. Light, with its myriad forms and colours—Sound, with its thousandfold life—make Nature what Nature appears to us. But they do not exist *as such* apart from our consciousness; they are the investitures with which we clothe the world. Nature in her insentient solitude is an eternal darkness—an eternal silence.

We conclude, therefore, that the world *per se* in nowise resembles the world as it appears to us. Perception is an effect; and its truth is not the truth of *resemblance*, but of *relation*, *i.e.* it is the true operation of the world on us, the true operation of cause and effect. But perception is not the true resemblance of the world: consciousness is no mirror reflecting external things.

Let us substitute for the metaphor of a mirror the more abstract expression: 'Perception is the effect of an external object acting on a sentient being,' and much of the confusion darkening this matter will be dissipated. An effect, we know, agrees with its cause, but it does not necessarily resemble it. An effect is no more a copy of the cause than pain is a copy of the application of fire to a finger: *ergo*, Perception can never be an accurate report of what things are *per se*, but only of what they are in relation to us.

It has been said that, although no single sense does actually convey to us a correct impression of anything, nevertheless we are enabled to confirm or modify the report of one sense by the report of another sense, and that the result of the whole activity of the five senses is a true impression of the external object. This curious fallacy pretends that a number of false impressions are sufficient to constitute a true one.

The conclusion to be drawn from the foregoing is this: There is no correspondence between the object and the sensation, except that of cause and effect. Sensations are not copies of objects; do not at all resemble them. As we can only know objects through sensation—*i.e.* as we can only know our sensations—we can never ascertain the truth respecting objects.

This brings us back to the New Academy, the disciples of which strenuously maintained that Perception, being nothing but a modification of the Soul, could never reveal the real nature of things.

Do we then side with the Academicians in proclaiming all human knowledge deceptive? No: to them, as to the Pyrrhonists, we answer: You are quite right in affirming that man cannot transcend the sphere of his own consciousness, cannot penetrate the real essences of things, cannot know causes, can only know phenomena. But this affirmation—though it crushes Metaphysics—though it interdicts the inquiry into *noumena*, into essences and causes, as frivolous because futile—does not touch Science. If all our knowledge is but a knowledge of phenomena, there can still be a Science of Phenomena adequate to all man's true wants. If Sensation is but the effect of an External Cause, we, who can never know that cause, know it in its relation to us, *i.e.* in its effects. These effects are as constant as their causes; and, consequently, there can be a Science of effects, the aim of which is to trace the Co-existences and Successions of Phenomena, *i.e.* to trace the relation of Cause and Effect throughout the universe submitted to our inspection.

But neither the Pyrrhonists nor the Academicians saw this refuge for the mind; they consequently proclaimed Scepticism as the final result of inquiry.

CHAPTER V.

SUMMARY OF THE EIGHTH EPOCH.

WE have now brought our narrative to the second crisis in the history of speculation. The Scepticism which made the Sophists powerful, and which closed the first period of this history, we now behold once more usurping the intellects of men, and this time with far greater power. A Socrates appeared to refute the Sophists. Who is there to refute and discredit the Sceptics?

The Sceptics, and all thinkers during the epoch we have just treated were such, whether they called themselves Epicureans, Stoics, Pyrrhonists, or New Academicians,—the Sceptics, we say, were in possession of the most formidable arms. From Socrates, from Plato, and from Aristotle, they had borrowed their best weapons, and with these had attacked Philosophy, and attacked it with success.

All the wisdom of the antique world was powerless against the Sceptics. Speculative belief was reduced to the most uncertain 'probability.' Faith in philosophic Truth was extinct. Faith in human endeavour that way was gone. Philosophy was rejected as impossible.

But there was one peculiarity of the Socratic doctrine which was preserved even in the midst of scepticism. Socrates had made Ethics the great object of his inquiries: and all subsequent thinkers had given it a degree of attention which before was unknown. Philosophy contented itself with the Common-Sense doctrine of the Stoics, and the Probabilities of the Sceptics, which, however futile as philosophic principles, were efficacious enough as moral principles. Common-

Sense may be a bad basis for metaphysical or scientific reasoning; but it is not so bad a basis for a system of morals.

The protest, therefore, which Scepticism made against all Philosophy was not so anarchical in its tendency as the protest made by the Sophists; but it was more energetic, more terrible. In the wisdom of that age there lay no cure for it. The last cry of despair seemed to have been wrung from the baffled thinkers, as they declared their predecessors to have been hopelessly wrong, and declared also that their error was without a remedy.

It was, indeed, a saddening contemplation. The hopes and aspirations of so many incomparable minds thus irrevocably doomed; the struggles of so many men, from Thales, who first asked himself, Whence do all things proceed? to the elaborate systematization of the forms of thought which occupied an Aristotle—the struggles of all these men had ended in Scepticism. Little was to be gleaned from the harvest of their endeavours but arguments against the possibility of that Philosophy they were so anxious to form. Centuries of thought had not advanced the mind one step nearer to a solution of the problems with which, child-like, it began. It began with a child-like question; it ended with an aged doubt. Not only did it doubt the solutions of the great problem which others had attempted; it even doubted the possibility of any solution. It was not the doubt which begins, but the doubt which ends inquiry: it had no illusions.

This was the second crisis of Greek Philosophy. Reason thus assailed could only find a refuge in Faith; and the next period opens with the attempt to construct a Religious Philosophy.

NINTH EPOCH.

Reason allies itself with Faith, and Philosophy renounces its independence, becoming once more an instrument of Theology—The Alexandrian School.

CHAPTER I.

RISE OF NEO-PLATONISM.

§ I. Alexandria.

PHILOSOPHY no longer found a home in Greece; it had no longer worshippers in its native country, and was forced to seek them elsewhere. A period had arrived when all problems seemed to have been stated, and none seemed likely to be solved. Every system which human ingenuity could devise had been devised by the early thinkers; and not one had been able to withstand examination. In the early annals of speculation, a new and decisive advance is made whenever a new question is asked; to suggest a doubt, is to exercise ingenuity; to ask a question, is to awaken men to a new view of the subject. But now all questions had been asked; old questions had been revived under new forms; nothing remained to stimulate inquiry, nothing to give speculators a hope of success.

Unable to ask new questions, or to offer new answers to those already asked, the philosophers readily seized on the only means which enabled them to gain renown: they travelled. They carried their doctrines into Egypt and to Rome; and in those places they were listened to with wonder and delight. Their old doctrines were novelties to a people who had no doctrines of its own; and, from the excessive cost of books in those days, almost all instruction being oral, the strangers were welcomed warmly, and the doctrines imported were as novel as if they had been just invented.

Philosophy, exiled from Greece, was a favoured guest in Alexandria and Rome: but in both cases it was a stranger, and could not be naturalized. In Alexandria, however, it made a brilliant display; and the men it produced gave it an originality and an influence which it never possessed in Rome.

Roman Philosophy was but a weak paraphrase of the Grecian. To speak Greek, to write Greek, became the fashionable ambition of Rome. The child was instructed by a Greek slave. Greek professors taught Philosophy and Rhetoric to aspiring youths. Athens had become the necessary '*tour*' which was to complete a man's education. It was there that Cicero learned those ideas which he delighted in setting forth in charming dialogues. It was there Horace learned that light and careless philosophy, which shines through the sparkling crystal of his verse. Wandering from the Academy to the Porch, and from the Porch to the Garden, he became imbued with a scepticism which checked his poetical enthusiasm; he learned to make a system of that pensive epicureanism which gives so peculiar a character to his poems.

In Rome, Philosophy might tinge the poetry, give weight to oratory, method to jurisprudence, and supply some topics of conversation; but it was no Belief filling the minds of serious men: it took no root in the national existence; it produced no great thinkers.

In Alexandria the case was different. There several schools were formed, and some new elements introduced into the doctrines then existent. Great thinkers—Plotinus, Proclus, Porphyry—made it illustrious; and it had a rival, whose antagonism alone would confer immortal renown upon it: that rival was Christianity.

In no species of grandeur was the Alexandrian School deficient, as M. Saisset observes:* genius, power, and duration, have consecrated it. Re-animating, during an epoch of decline, the fecundity of an aged civilization, it created a whole family of illustrious names. Plotinus, its real founder, resuscitated Plato; Proclus gave the world another Aristotle; and, in the person of Julian the Apostate, it became master of the world. For three centuries it was a formidable rival to the greatest power that ever appeared on earth—the power of Christianity; and, if it succumbed in the struggle, it only fell with the civilization of which it had been the last rampart.

Alexandria, the centre of gigantic commerce, soon became a new metropolis of science, rivalling Athens. The Alexandrian Library is too celebrated to need more than a passing allusion: to it, and to the men assembled there, we owe the vast labours of erudition in philosophy and literature which were of such service to the world.

Beside the Museum of Alexandria there rose into formidable importance the Didascalia of the Christians. In the same city, Philo the Jew, and Œnesidemus the Pyrrhonist, founded their respective schools. Ammonius Saccas appears there. Lucian passes through at the same time that Clemens Alexandrinus is teaching. After Plotinus has taught, Arius and Athanasius will also teach. Greek Scepticism, Judaism, Platonism, Christianity—all have their interpreters within so small a distance from the temple of Serapis.

§ II. Philo.

Alexandria, as we have seen, was the theatre of various struggles: of these we are to select one, and that one the struggle of the Neo-Platonists with the Christian Fathers.

Under the name of the Alexandrian School are designated, loosely enough, all those thinkers who endeavoured to find a refuge from Scepticism in a new Philosophy, based on altogether new principles. Now, although these various thinkers by no means constitute a School, they constitute a Movement, and they form an Epoch in the history of Philosophy. We may merely observe that the 'Alexandrian School' and the 'Neo-Platonists' are not convertible terms: the former designates a whole movement, the latter designates the most illustrious section of that movement.

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* *Revue des Deux Mondes*, 1844, tome iii. p. 783.

Philo the Jew is the first of these Neo-Platonists. He was born at Alexandria, a few years before Christ. The influence of Greek ideas had long been felt in Alexandria, and Philo, commenting on the writings of the Jews, did so in the spirit of one deeply imbued with Greek thought. His genius was Oriental, his education Greek; the result was a strange mixture of mysticism and dialectics.* To Plato he owed much: but to the New Academy, perhaps more. From Carneades he learned to distrust the truth of all sensuous knowledge, and to deny that Reason had any criterion of truth.

Thus far he was willing to travel with the Greeks; thus far had dialectics conducted him. But there was another element in his mind beside the Greek: there was the Oriental or mystical element. If human knowledge is a delusion, we must seek for truth in some higher sphere. The Senses may deceive; Reason may be powerless; but there is still a faculty in man—there is Faith. Real Science is the gift of God: its name is Faith: its origin is the goodness of God: its cause is Piety.

This conception is not Plato's, yet is nevertheless Platonic. Plato would never have thus condemned Reason for the sake of Faith; and yet he, too, thought that the nature of God could not be known, although his existence could be proved. In this he would have agreed with Philo. But, although Plato does not speak of Science as the gift of God, he does in one place so speak of Virtue; and he devotes the whole dialogue of the *Meno* to show that Virtue cannot be taught, because it is not a thing of the understanding, but a gift of God. The reasons he there employs may easily have suggested to Philo their application to Philosophy.

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* St. Paul thus comprehensively expresses the national characteristic of the Jews and Greeks: 'The Jews require a sign (*i.e.* a miracle), and the Greeks seek after wisdom (*i.e.* philosophy).'—1 *Corinth.* i. 22.

From this point Philo's Philosophy of course becomes a Theology. God is ineffable, incomprehensible: his existence may be known; his nature can never be known: *ὁ δ' ἄρα οὐδὲ τῷ νῷ καταληπτός, ὅτι μὴ κατὰ τὸ εἶναι μόνον.* But to know that he exists is in itself the knowledge of his being one, perfect, simple, immutable, and *without attribute.* This knowledge is implied in the simple knowledge of his existence: he cannot be otherwise, if he exist at all. But to know this, is not to know in what consists his perfection. We cannot penetrate with our glance the mystery of his essence. We can only believe.

If however we cannot know God in his essence, we can obtain some knowledge of his Divinity: we know it in *The Word.* This λόγος—this *Word* (using the expression in its Scriptural sense)—fills a curious place in all the mystical systems. God being incomprehensible, inaccessible, an intermediate existence was necessary as an interpreter between God and Man, and this intermediate existence the Mystics called *The Word.*

The Word, according to Philo, is God's Thought. This Thought is twofold: it is λόγος ἐνδιάθετος, the Thought as embracing all Ideas (in the Platonic sense of the term Idea), *i. e.* Thought *as* Thought; and it is λόγος προφορικός, the Thought *realized*: Thought become the World.

In these three *hypostases* of the Deity we see the Trinity of Plotinus foreshadowed. There is, first, God the Father; secondly, the Son of God, *i. e.* the λόγος; thirdly, the Son of the λόγος, *i. e.* the World.

This brief outline of Philo's Theology will sufficiently exemplify the two great facts which we are anxious to have understood:—1st, the union of Platonism with Oriental mysticism; 2ndly, the entirely new direction given to

Philosophy, by uniting it once more with Religion. It is this direction which characterizes the Movement of the Alexandrian School. Reason had been shown to be utterly powerless to solve the great questions of Philosophy then agitated. Various Schools had pursued various Methods, but all with one result. Scepticism was the conclusion of every struggle. 'And yet,' said the Mystics, 'we have an idea of God and of his goodness; we have an ineradicable belief in his existence, and in the Perfection of his nature, consequently, in the beneficence of his aims. Yet these ideas are not innate; were they innate, they would be uniformly entertained by all men, and amongst all nations. If they are not innate, whence are they derived? Not from Reason; not from experience; then from Faith.'

Now, Philosophy, conceive it how you will, is entirely the offspring of Reason: it is the endeavour to explain by Reason the mysteries amidst which we 'move, live, and have our being.' Although it is legitimate to say, 'Reason is incapable of solving the problems proposed to it,' it is not legitimate to add, '*therefore* we must call in the aid of Faith.' In Philosophy, Reason must either reign alone, or abdicate. No compromise is permissible. If there are things between heaven and earth which are not dreamt of in our Philosophy—which do not come within the possible sphere of our Philosophy—we may believe in them, indeed, but we cannot christen that belief philosophical.

One of two things,—either Reason is capable of solving the problems, or it is incapable: in the one case its attempt is philosophical; in the second case its attempt is futile. Any attempt to mix up Faith with Reason, in a matter exclusively addressed to the Reason, must be abortive. We do not say that what Faith implicitly accepts, Reason may not explicitly justify; but we say, that to bring Faith to the aid of Reason, is altogether to destroy the philosophical character of an inquiry. Reason may justify Faith; but Faith must not furnish conclusions *for* Philosophy. Directly Reason is abandoned, Philosophy ceases; and every explanation then offered is a theological explanation, and must be put to altogether different tests from what a philosophical explanation would require.

Speculation was originally theological; but in process of time Reason timidly ventured upon what are called 'natural explanations;' and from the moment that it felt itself strong enough to be independent, Philosophy was established. In the early speculations of the Ionians we saw the pure efforts of Reason to explain mysteries. As Philosophy advanced, it became more and more evident that the problems attacked by the early thinkers were, in truth, so far from being nearer a solution, that their extreme difficulty was only just becoming appreciated. The difficulty became more and more apparent, till at last it was pronounced insuperable: Reason was declared incompetent. Then the Faith which had so long been set aside was again called to assist the inquirer. In other words, Philosophy, discovering itself to be powerless, resigned in favour of Theology.

When therefore we say that the direction given to the human mind by the Alexandrian School, in conjunction with Christianity—the only two spiritual movements which materially influenced the epoch we are speaking of—was a theological direction, the reader will at once see its immense importance, and will be prepared to follow us in our exposition of the mystical doctrines of Plotinus.

CHAPTER II.

ANTAGONISM OF CHRISTIANITY AND NEO-PLATONISM.

§ I. PLOTINUS.

WHILE Christianity was making rapid and enduring progress in spite of every obstacle; while the Apostles wandered from city to city, sometimes honoured as Evangelists, at other times insulted and stoned as enemies, the Neo-Platonists were developing the germ deposited by Philo, and not only constructing a theology, but endeavouring on that theology to found a Church. Whilst a new religion, Christianity, was daily usurping the souls of men, these philosophers fondly imagined that an old religion could effectually oppose it.

Christianity triumphed without much difficulty. Looking at it in a purely moral view, its superiority is at once apparent. The Alexandrians exaggerated the vicious tendency of which we have already seen the fruits in the Cynics and Stoics,—the tendency to despise Humanity. Plotinus blushed because he had a body: contempt of human personality could go no further. What was offered in exchange? The ecstatic perception; the absorption of personality in that of the Deity—a Deity inaccessible to knowledge as to love—a Deity which the soul can only attain by a complete annihilation of its personality.

The attempt of the Neo-Platonists failed, as it deserved to fail; but it had great talents in its service, and it made great noise in the world. It had three periods. The first of these, the least brilliant but the most fruitful, is that of Ammonius Saccas and Plotinus. A porter of Alexandria becomes the chief of a School, and men of genius listen to him; amongst his disciples are Plotinus, Origen, and Longinus. This School is perfected in obscurity, and receives at last a solid basis by the development of a metaphysical system. Plotinus, the author of this system, shortly after lectures at Rome with amazing success. It is then that the Alexandrian School enters upon its second period. With Porphyry and Iamblicus it becomes a sort of Church, and disputes with Christianity the empire of the world. Christianity had ascended the throne in the person of Constantine; Neo-Platonism dethrones it, and usurps its place in the person of Julian the Apostate. But now mark the difference. In losing Constantine, Christianity lost nothing of its real power; for its power lay in the might of convictions, and not in the support of potentates; its power was a spiritual power, ever active, ever fruitful. In losing Julian, Neo-Platonism lost its power, political and religious. The third period commences with that loss: and the genius of Proclus bestows on it one last gleam of splendour. In vain did he strive to revive the scientific spirit of Platonism, as Plotinus had endeavoured to revive the religious spirit of Paganism: his efforts were vigorous, but sterile. Under Justinian the School of Alexandria became extinct.

Such is the outward history of the School: let us now cast a glance at the doctrines which were there elaborated. In the writings of thinkers professedly eclectic, such as were the Alexandrians, it is obvious that the greater portion will be repetitions and reproductions of former thinkers; and the historian will therefore neglect such opinions to confine himself to those which constitute the originality of the School. The originality of the Alexandrians consists in having employed the Platonic Dialectics as a guide to Mysticism and Pantheism; in having connected the doctrine of the East with the dialectics of the Greeks; in having made Reason the justification of Faith.

There are three essential points to be here examined: their Dialectics, their theory of the Trinity, and their principle of Emanation. By their Dialectics they were Platonists; by their theory of the Trinity they were Mystics; by their principle of Emanation they were Pantheists.

§ II. THE ALEXANDRIAN DIALECTICS.

The nature of the Platonic Dialectics we hope to have already rendered intelligible; so that in saying Plotinus employed them we are saved from much needless repetition. But although Dialectics formed the basis of Alexandrian philosophy, they did not, as with Plato, furnish the grounds of *belief*. As far as human philosophy went, Dialectics were efficient; but there were problems which did not come within the sphere of human philosophy, and for these another Method was requisite.

Plotinus agreed with Plato that there could only be a science of Universals. Every individual thing was but a phenomenon, passing quickly away, and having no real existence; it could not therefore be the object of philosophy. But these universals—these Ideas which are the only real existences—are they not also subordinate to some higher Existence? Phenomena were subordinate to Noumena; but Noumena themselves were subordinate to the One Noumenon. In other words, the Sensible World was but the Appearance of the Ideal World, and the Ideal World in its turn was but the mode of God's existence.

The question then arose: How do we know anything of God? The Sensible World we perceive through our senses; the Ideal World we gain glimpses of through the reminiscence which the Sensible World awakens in us; but how are we to take the last step—how are we to know the Deity?

I am a finite being; but how can I comprehend the Infinite? As soon as I comprehend the Infinite, I am infinite myself: that is to say, I am no longer myself, no longer that finite being, having a consciousness of his own separate existence.* If, therefore, I attain to a knowledge of the Infinite, it is not by my Reason, which is finite and embraces only finite objects, but by some higher faculty, a faculty altogether impersonal, which identifies itself with its object.

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* Τίς ἂν οὖν τὴν δύναμιν αὐτοῦ ἕλοι ὁμοῦ πᾶσαν; εἰ γὰρ ὁμοῦ πᾶσαν, τί ἄν τις αὐτοῦ διαφέροι;—PLOTINUS, *Enn.* v. lib. 5. c. 10.

'The identity of Subject and Object—of the thought with the thing thought of—is the only possible ground of knowledge.' This position, which some of our readers will recognize as a fundamental position of modern German speculation, is so removed from all ordinary conceptions, that we must digress awhile in order to explain it.

Knowledge and Being are identical; to know more is to *be* more. This is not, of course, maintaining the absurd proposition that to know a horse is to be a horse: all we know of that horse is only what we know of the changes in ourselves occasioned by some external cause; and identifying our internal change with that external cause, we call it a horse. Here knowledge and being are identical. We really know nothing of the external cause (horse), we only know our own state of being; and to say, therefore, that 'in our knowledge of the horse we are the horse,' is only saying, in unusual language, that our knowledge is a state of our being, and nothing more. The discussion respecting perception, at page 367, showed that knowledge is only a state of our own consciousness, excited by some unknown cause. The cause *must* remain unknown, because knowledge is effect, not cause.

An apple is presented to you; you see it, feel it, taste it, smell it, and are said to know it. What is this knowledge? Simply a consciousness of the various ways in which the apple affects you. Are you blind and cannot see it? there is one quality less which it possesses, *i. e.* one mode less in which it is possible for you to be affected. Are you without the senses of smell and taste? there are two other deficiencies in your knowledge of the apple. So that, by taking away your senses, we take away from the apple each of its qualities: in other words, we take away the means of your being affected. Your knowledge of the apple is reduced to nothing. In a similar way, by endowing you with more senses we increase the qualities of the apple; we increase your knowledge by enlarging your being. Thus are Knowledge and Being identical; knowledge is a state of Being as knowing.

'If,' said Plotinus, 'knowledge is the same as the thing known, the Finite, as Finite, never can know the Infinite, because it cannot *be* the Infinite. To attempt, therefore, to know the Infinite by Reason is futile, it can only be known in immediate presence, *παρουσία.* The faculty by which the mind divests itself of its personality is Ecstasy. In this Ecstasy the soul becomes loosened from its material prison, separated from individual consciousness, and becomes absorbed in the Infinite Intelligence from which it emanated. In this Ecstasy it contemplates real existence; it identifies itself with that which it contemplates.'

The enthusiasm upon which this Ecstasy is founded is not a faculty which we constantly possess, such as Reason or Perception: it is only a transitory state, at least so long as our personal existence in this world continues. It is a flash of rapturous light, in which reminiscence is changed into intuition, because in that moment the captive soul is given back to its parent, its God. The bonds which attach the soul to the body are mortal; and God, our father, pitying us, has made those bonds, from which we suffer, fragile and delicate, and in his goodness he gives us certain intervals of respite: *Ζεὺς δὲ πατὴρ ἐλέησας πυνουμένας, θνητὰ αὐτῶν τὰ δεσμὰ ποιῶν περὶ ἃ πονοῦνται, δίδωσιν ἀναπαύλας ἐν χρόνοις.*

The Oriental and mystical character of this conception is worth remarking; at the same time there is a Platonic element in it, which may be noticed. Plato, in the *Ion,* speaks of a chain of inspiration, which descends from Apollo to poets, who transmit the inspiration to the rhapsodists; the last links of the chain are the souls of lovers and philosophers, who, unable to transmit the divine gift, are nevertheless agitated by it. The Alexandrians also admit the divine inspiration: not that inspiration which only warms and exalts the heart, but that inspiration revealing the Truth which Reason can neither discern nor comprehend. Whether, in ascending through the various sciences and laboriously mounting all the degrees of Dialectics, we finally arrive at the summit, and tear away the veil behind which the Deity is hidden; or, instead of thus slowly mounting, we arrive at the summit by a sudden spring, by the force of virtue or by the force of love, the origin of this revelation is the same: the Poet, the Prophet, and the Philosopher only differ in the point of departure each takes. Dialectics, therefore, though a valuable method, is not an infallible one for arriving at Ecstasy. Everything which purifies the soul and makes it resemble its primal simplicity, is capable of conducting it to Ecstasy. Besides, there are radical differences in men's natures. Some souls are ravished with Beauty; and these belong to the Muses. Others are ravished with Unity and Proportion; and these are Philosophers. Others are more struck with Moral perfections; and these are the pious and ardent souls who live only in religion.

Thus, then, the passage from simple Sensation, or from Reminiscence, to Ecstasy, may be accomplished in three ways. By Music (in the ancient and comprehensive sense of the term), by Dialectics, and by Love or Prayer. The result is always the same—the victory of the Universal over the Individual.

Such is the answer given by the Alexandrians to that world-old question, How do we know God? The Reason of man is incompetent to such knowledge, because Reason is finite, and the finite cannot embrace the infinite. But, inasmuch as man has a knowledge of the Deity, he must have obtained it in some way: the question is, In what way? This question, which the Christian Fathers answered by referring to Revelation, the Alexandrians could only answer by declaring Ecstasy to be the medium of communication, because in Ecstasy the soul lost its personality and became absorbed in the infinite Intelligence.

We may read in this an instructive lesson respecting the vicious circle in which all such reasonings are condemned to move:—

> 'The one poor finite being in the abyss
> Of infinite being twinkling restlessly'—

this finite being strives to comprehend that which includes it, and in the impossible attempt exerts its confident ingenuity.

Asserting that the finite *as* finite cannot comprehend the infinite, the Alexandrian hypothesis is at least consistent in making the finite become, for an instant, infinite. The grounds however upon which this hypothesis is framed are curious. The axiom is this:—The finite *cannot* comprehend the infinite. The problem is this:—How *can* the finite comprehend the infinite? And the solution is:—The finite must *become* the infinite.

Absurd as this is, it is the conclusion deduced by a vigorous intellect from premisses which seemed indisputable. It is only one of the absurdities inseparable from the attempted solution of an insoluble problem.

§ III. The Alexandrian Trinity.

We have said that the philosophy of the Alexandrians was a theology; their theology may be said to be concentrated in the doctrine of the Trinity. Nearly allied to the mystery of the Incarnation, which was inseparable from the mystery of Redemption, the dogma of the Holy Trinity was, as M. Saisset remarks, the basis of all the Christian metaphysics. The greater part of the important heresies, Arianism, Sabellianism, Nestorianism, &c., resulted from differences respecting some portion of this doctrine. It becomes, therefore, a natter of high historical interest to determine its parentage. Some maintain that the Trinity of the Christians was but an mitation of that of the Alexandrians; others accuse the lexandrians of being the imitators. The dispute has been ngrily conducted on both sides.*

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* Such of our readers as may desire a compendious statement of the question e referred to M. Jules Simon, *Histoire de l'École d'Alexandrie*, vol. i. pp. 308–341,

The Alexandrian Trinity is as follows:—God is triple, and, at the same time, one. His nature contains within it three distinct *Hypostases* (Substances, *i.e.* Persons), and these three make one Being. The first is the Unity: not The One Being, not Being at all, but simple Unity. The second is the Intelligence, which is identical with Being. The third is the Universal Soul, cause of all activity and life.

Such is the formula. Let us now see how their Dialectics conducted them to it. On looking abroad upon the world, and observing its constant transformations, what is the first thing that presents itself to our minds as the cause of all these changes? It is life. The whole world is alive; and, not only alive, but seemingly participating in a life similar to our own. On looking deeper, we discover that life itself is but an effect of some higher cause; and this cause must be the 'Universal' which we are seeking to discover. Analogy suggests that it is Activity—Motion. But with this Motion we cannot proceed far. It soon becomes apparent to us that the myriad on-goings of nature are not merely activities, but *intelligent* activities. No hazard rules this world. Intelligence is everywhere visible. The cause, then, we have been seeking is at last discovered: it is an Intelligent Activity. Now, what is this, but that mysterious force residing within us, directing us, impelling us? What is this Intelligent Activity but a soul? The soul which impels and directs us is an image of the Soul which impels and directs the world. God, therefore, is the eternal Soul, the ψυχή. We have here the first Hypostasis of the Alexandrians.

On a deeper inspection this notion turns out less satisfactory. The dialectician, whose whole art consists in dividing and subdividing, in order to arrive at pure unity—who is always unravelling the perplexed web of speculation, to lay bare at last the unmixed One which had become enveloped in the Many—the dialectician, bred up in the Schools of Plato and Aristotle, could not rest satisfied with so complex

and to the article by M. Saisset, in the *Revue des Deux Mondes*, before referred to.

an entity as an Intelligent Activity. There are at least two ideas here, and two ideas entirely distinct in nature, viz. Intelligence and Motion. Now, although these might be united in some idea common to both yet superior to both, neither of them could be considered as the last term in an analysis. The Intelligence, when analyzed, is itself the activity of some intelligent being, of Mind, *λόγος*.

God, therefore, is Mind, absolute, eternal, immutable. We have here the second Hypostasis. Superior to the Divine Soul, *ψυχὴ τοῦ παντός*, which is the cause of all activity, and king of the sensible world, *χορηγὸς τῆς κινήσεως, βασιλεὺς τῶν γιγνομένων*, we find the Divine Mind, *νοῦς*, the magnificence of which we may faintly conceive by reflecting on the splendours of the sensible world, with the Gods, Men, Animals, and Plants, which adorn it: splendours which are but imperfect images of the incomparable lustre of eternal truth. The Divine Mind embraces all the intelligible Ideas which are without imperfection, without movement. This is the Age of Gold, of which God is the Saturn. For Saturn, of whom the Poets have so grandly sung, is the Divine Intelligence; that perfect world which they have described, when

> 'Ver erat æternum: placidique tepentibus auris
> Mulcebant Zephyri natos sine semine flores.
> Mox etiam fruges tellus inarata ferebat;
> Nec renovatus ager gravidis canebat aristis.
> Flumina jam lactis, jam flumina nectaris ibant;
> Flavaque de viridi stillabant ilice mella.' *

That golden age is the Intelligible World, the eternal thought of eternal Intelligence.

A word on this Alexandrian *νοῦς*. It is Thought abstracted from all thinking; it does not reason: for to reason is to acquire a knowledge of something; he who reasons, arrives at a consequence from his premisses, which he did not see in those premisses without effort. But God sees the consequence simultaneously with the premisses. His knowledge resembles our knowledge as hieroglyphic writing resembles our written language: that which we discursively develope, he embraces at once.

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* 'The flowers unsown in fields and meadows reigned;
And western winds immortal spring maintained.
In following years the bearded corn ensued
From earth unasked; nor was that earth renewed.
From veins of valleys milk and nectar broke,
And honey sweating from the pores of oak.'—DRYDEN'S *Ovid*.

This *νοῦς* is at the same time the eternal existence, since all Ideas are united in it. It is the *νόησις νοήσεως νόησις* of Aristotle,—or, to use the language of Plotinus, the Sight Seeing, the identity of the act of seeing with the object seen: *ἔστι γὰρ ἡ νόησις ὅρασις ὁρῶσα, ἄμφω τὸ ἕν*,—a conception which will at once be understood by recurring to our illustration of the identity of Knowledge and Being.

One would fancy that this was a degree of abstraction to satisfy the most ardent dialectician; to have analyzed thus far, and to have arrived at pure Thought and pure Existence—the Thought apart from Thinking and the Existence apart from its modes—would seem the very limit of human ingenuity, the last abstraction possible. But no: the dialectician is not yet contented: he sees another degree of abstraction still higher, still simpler: he calls it Unity. God, as Existence and Thought, is God as conceived by human intelligence: but, although human intelligence is unable to embrace any higher notion of God, yet is there in human intelligence a hint of its own weakness and an assurance of God's being something ineffable, incomprehensible. God is not, *en dernière analyse*, Existence and Thought. What is Thought? What is its type? The type is evidently human reason. What does an examination of human reason reveal? This:—To think is to be aware of some object from which the thinker distinguishes himself. To think is to have a self-consciousness, to distinguish one's personality from that of all other objects, to determine the relation of self to not-self. But nothing is external to God: in him there can be no distinction, no determination, no relation. Therefore God, in his highest hypostasis, cannot think, cannot be thought, but must be something superior to thought. Hence, the necessity for a third hypostasis, which, third in the order of discovery, is first in the order of being: it is Unity,—*τὸ ἓν ἁπλοῦν*.

The Unity is not Existence, neither is it Intelligence—it is superior to both: it is superior to all action, to all determination, to all knowledge; for, in the same way as the *multiple* is contained in the *simple*, the many in the one, in the same way is the simple contained in the unity; and it is impossible to discover the truth of things until we have arrived at this absolute unity; for, how can we conceive any existing thing except by unity? What is an individual, an animal, a plant, but that unity which presides over multiplicity? What even is multiplicity—an army, an assembly, a flock—when not brought under unity? Unity is omnipresent; it is the bond which unites even the most complex things. The Unity which is absolute, immutable, infinite, and self-sufficing is not the numerical unit, not the indivisible point. It is the absolute universal *One* in its perfect simplicity. It is the highest degree of perfection—the ideal Beauty, the supreme Good, *πρῶτον ἀγαθόν*.

God therefore in his absolute state—in his first and highest hypostasis—is neither Existence nor Thought, neither moved nor mutable: he is the simple Unity, or, as Hegel would say, the Absolute Nothing, the Immanent Negative.

Our readers will perhaps scarcely be patient under this infliction of dialectical subtlety; but we beg them to remember that the absurdities of genius are often more instructive than the discoveries of common men, and the subtleties and extravagances of the Alexandrians are fraught with lessons. If rigorous logic conducted eminent minds to conceptions which appear extravagant and sterile, they may induce in us a wholesome suspicion of the efficacy of that logic to solve the problems it is occupied with. Nor is the lesson inapplicable to our own age. German metaphysicians resemble Plotinus more than Plato or Aristotle: nor is the reason difficult of discovery. Plotinus, coming after all the great thinkers had asked almost every metaphysical question and given almost every possible answer, was condemned either to scepticism, or to accept any consequences of his dialectics, however extreme. Philosophy was in this dilemma: either to abdicate, or to be magnificently tyrannical: it chose to be the latter. Plotinus therefore shrank from no extravagances: where Reason failed, there he called upon Faith. The Germans who saw the establishment of Positive Science, on the one hand, and the destructive results of Kant's *Critique* on the other, found Philosophy in a similar dilemma: compelled either to declare itself incapable, or to proclaim its despotism and infallibility.

The Hegelian faith in dialectics may be contrasted with the Alexandrian faith in Ecstasy. Both proceed with peaceable dogmatism to explain that God is this, or that; to explain how the Nothing *becomes* the existing world; to explain many other inexplicable things; and, if you stop them with the simple inquiry, How do you know this? what is your ground of certitude? they smile, allude blandly to *Vernunft*, and continue their exposition.

Plotinus, indeed, said, that although Dialectics raise us to some conviction of the existence of God, we cannot speak of his nature otherwise than negatively: *ἐν ἀφαιρέσει πάντα τὰ περὶ τοῦτον λεγόμενα.* We are forced to admit his existence, though it is not correct to speak even of his existence. To say that he is superior to Existence and Thought is not to define him; it is only to distinguish him from what he is not. What he is we cannot know; it would be ridiculous to endeavour to comprehend him. This difference apart, there is remarkable similarity in the speculations of the Alexandrians and the Hegelians: a similarity which all will detect who are capable of detecting identity of thought under diversity of language.

To return to the Alexandrian Trinity, we see in it the Perfect Principle, the One, τὸ ἓν ἁπλοῦν, which generates but is ungenerated; the Principle generated by the Perfect is of all generated things the most perfect: it is therefore Intelligence: νοῦς. In the same way as Intelligence is *the Word* (λόγος) of the One and the manifestation of its power, so also the Soul is the Word and manifestation of the Intelligence, *οἷον καὶ ἡ ψυχὴ λόγος νοῦ.* The three hypostases of the Deity are therefore, 1st, the Perfect, the Absolute Unity, *τὸ ἓν ἁπλοῦν*; 2nd, the First Intelligence, *τὸ νοῦν πρώτως*; 3rd, the Soul of the world.

This Trinity is very similar to the threefold nature of God in Spinoza's system. Spinoza says, that God is the infinite Existence, having two infinite Attributes, namely, Extension and Thought. Now this Existence, which has neither Extension nor Thought except as Attributes, although verbally differing from the Absolute Unconditioned, the One, of Plotinus, is really the same: it is the last abstraction which the human faculty can make: it is that *of which* nothing can be predicated, and yet which must be the final predicate of everything: division and subdivision, however prolonged, stop there, and admit as final the Unconditioned Unconditional Something, or that which Proclus (and after him Hegel) calls The Non-Being, *μὴ ὄν*, although it is not correct to call it nothing, *μηδέν.*

This conception, which it is impossible to state in words without stating gross contradictions, is the result of rigorous logic. The process is this: I have to discover that which *is* at the bottom of the mystery of existence—the great First Cause; and, to do this I must eliminate one by one everything which does not present itself as self-existing, self-sufficing, as necessarily the *first* of all things, the *ἀρχή.*

The ancients began their speculations in the same way, but with less knowledge of the conditions of inquiry. Hence Water, Air, Soul, Number, Force, were severally accepted as *Principia.* In the time of the Alexandrians something more subtle was required. They asked the same question, but they asked it with a full consciousness of the failure of their predecessors. Even Thought would not satisfy them as a *Principium*; nor were they better satisfied with abstract Existence. They said there is something beyond Thought, something beyond Existence: there is *that which* thinks, *that which* exists. This '*that,*' this Indeterminate Ineffable, is the Principium. It is self-sufficing, self-existent; nothing can be conceived beyond it. In the old Indian hypothesis of the world being supported by an elephant, who stood on the back of a tortoise, the tortoise standing on nothing, we see a rude solution of the same problem: the mind is forced to arrest itself somewhere, and wherever it arrests itself it is forced to declare, explicitly or implicitly, that it stops at Nothing; because, as soon as it predicates anything of that at which it stops, it is forced to admit *something* beyond: if the tortoise stands on the back of some other animal, *upon what* does that other animal stand?

Philosophy, when employed upon this subject, necessarily abuts upon Nothing, upon absolute Negation; the terms in which this conception is clothed may differ, but the conception remains the same: Plotinus and Hegel shake hands.

In reviewing the history of Greek speculation, from the 'Water' of Thales to the 'Absolute Negation' of Plotinus, what a reflection is forced upon us of the vanity of metaphysics! So many years of laborious inquiry, so many splendid minds engaged, and, after the lapse of ages, the inquiry remains the same, the answer only more ingeniously absurd! Was, then, all this labour vain? Were those long laborious years all wasted? Were those splendid minds all useless? No: earnest endeavour is seldom without result. Those centuries of speculation were not useless, they were the education of the human race. They taught mankind this truth at least: the Infinite cannot be known by the finite: and man, as finite, can only know phenomena. Those labours, so fruitless in their immediate object, have indirect lessons. The speculations of the Greeks preserve the same privilege as the glorious products of their art and literature; they are the models from which the speculations of posterity are reproductions. The history of modern metaphysical philosophy is but the narrative of the same struggles which agitated Greece. The same problems are revived, and the same answers offered.

§ IV. The Doctrine of Emanation.

Ancient Metaphysics propounds three questions: Has human knowledge any absolute certainty? What is the nature of God? What is the origin of the World?

Our review of the various attempts to answer these questions has ended in the Alexandrian School, which answered them as follows: 1st. Human knowledge is necessarily uncertain; but this difficulty is got over by the hypothesis of an Ecstasy, in which the soul becomes identified with the Infinite. 2nd. The nature of God is a triple Unity —three hypostases of the One Being. 3rd. The origin of the world is the law of *Emanation.*

This third answer is of course implied in the second. God, as Unity, *is* not Existence; but he becomes Existence by the Emanation from his Unity (Intelligence), and by the second emanation from his Intelligence (Soul), and this Soul, in its manifestations, is the World.

Hitherto dualism has been the universal creed of those who admitted any distinction between the world and its Creator. Jupiter organizing Chaos; the God of Anaxagoras whose force is wasted in creation; the δημιουργός of Plato who conquers and regulates Matter and Motion; the immovable Thought of Aristotle: all these creeds were dualistic; and, indeed, to escape dualism was not easy.

If God is distinct from the World, dualism is at once assumed. If he is distinct, he must be distinct in Essence. If distinct in essence, the question of Whence came the world? is not answered; for the world must have existed contemporaneously with him.

Here lies the difficulty: either God made the world, or he did not. If he made it, whence did he make it? He could not, said logic, make it out of Nothing: for Nothing can come of Nothing; he must, therefore, have made it out of his own substance. If it is made out of his own substance, then it is identical with him: it must then have existed already in him, or he could not have produced it. But this identification of God with the world is Pantheism; and begs the question it should answer.

If he did not make it out of his own substance, he must have made it out of some substance already existing; and thus also the question still remains unanswered.

This problem was solved by the Christians and Alexandrians in a similar, though apparently different, manner. The Christians said that God created the world out of Nothing by the mere exercise of his omnipotent will; for to Omnipotence everything is possible; one thing is as easy as another. The Alexandrians said that the world was distinct from God *in act* rather than *in essence*: it was the manifestation of his will, or of his intelligence.

Thus the world is God; but God is not the world. Without the necessity of two principles, the distinction is preserved between the Creator and the Created. God is not confounded with Matter; and yet philosophy is no longer oppressed with the difficulty of accounting for two eternally existing and eternally distinct principles.

Plotinus had by his Dialectics discovered the necessity of Unity as the basis of existence: he had also by the same means discovered that the Unity could not possibly remain alone: otherwise, there would never have been the Many. If the Many implies the One, the One also implies the Many. It is the property of each principle to engender that which follows it: to engender it in virtue of an ineffable power which loses nothing of itself. This power, ineffable, inexhaustible, exercises itself without stopping, from generation to generation, till it attains the limits of possibility.

By this law, which governs the world, and from which God himself cannot escape, the totality of existences, which Dialectics teach us to arrange in a proper hierarchy from God to sensible Matter, appear to us thus united in one indissoluble chain, since each being is the necessary product of that which precedes it, and the necessary producer of that which succeeds it.

If asked why Unity should ever become Multiplicity—why God should ever manifest himself in the world? the answer is ready: The One, as conceived by the Eleatics, had long been found incomplete; for a God who had no intelligence could not be perfect: as Aristotle says, a God who does not think is unworthy of respect. If, therefore, God is Intelligent, he is necessarily active: a force that engenders nothing, can that be a real force? It was, therefore, in the very nature of God a necessity for him to create the world: *ἐν τῇ φύσει ἦν τὸ ποιεῖν.*

God, therefore, is in his very essence a Creator, *ποιητής*. He is like a Sun pouring forth his rays, without losing any of its substance: *οἷον ἐκ φωτός, τὴν ἐξ αὐτοῦ περίλαμψιν.* All this flux—this constant change of things, this birth and death—is but the restless manifestation of a restless force. These manifestations have no absolute truth, no duration. The individual perishes, because individual: it is only the universal that endures. The individual is the finite, the perishable; the universal is the infinite, immortal. God is the only existence: he is the real existence, of which we, and other things, are but the transitory phenomena. And yet timid ignorant man, timid because ignorant, fears death! To die is to live the true life: it is to lose, indeed, sensation, passions, interests, to be free from the conditions of space and time,—to lose personality; but it is also to quit this world and to be born anew in God,—to quit this frail and pitiable individuality, to be absorbed in the being of the Infinite. To die is to live the true life. Some faint glimpses of it—some overpowering anticipations of a bliss intolerable to mortal sense, are realized in the brief moments of Ecstasy, wherein the Soul is absorbed in the Infinite, although it cannot long remain there. Those moments so exquisite yet so brief are sufficient to reveal to us the divinity, and to show us that deep embedded in our personality there is a ray of the divine source of light, a ray which is always struggling to disengage itself, and return to its source. To die is to live the true life; and

Plotinus dying, said, in his agony, 'I am struggling to liberate the divinity within me.'

This mysticism is worth attention, as indicative of the march of the human mind. In many preceding thinkers we have seen a very strong tendency towards the desecration of personality. From Heraclitus to Plotinus there is a gradual advance in this direction. The Cynics and the Stoics made it a sort of philosophical basis. Plato implicitly, and sometimes explicitly, gave it his concurrence. The conviction of man's insignificance, and of the impossibility of his ever in this world ascertaining the truth, seem to have oppressed philosophers with self-contempt. To curse the bonds which bound them to ignorance, and to quit a world in which they were thus bound, were the natural consequences of their doctrines; but, linked mysteriously as we are to life—even to the life we curse—our doctrines seldom lead to suicide. In default of suicide, nothing remained but Asceticism—a moral suicide. As man could not summon courage to quit the world, he would at least endeavour to lead a life as far removed from worldly passion and worldly condition as was possible; and he would welcome death as the only true life.

CHAPTER III.

PROCLUS.

PLOTINUS attempted to unite Philosophy with Religion, attempted to solve by Faith the problems insoluble by Reason; and the result of such an attempt was necessarily mysticism. But, although the mystical element is an important one in his doctrine, he did not allow himself to be seduced into all the extravagances which naturally flowed from it. That was reserved for his successors, Iamblicus in particular, who performed miracles, and constituted himself High Priest of the Universe.

With Proclus the Alexandrian School made a final effort, and with him its defeat was entire. He was born at Constantinople, A.D. 412. He came early to Alexandria, where Olympiodorus was teaching. He passed onwards to Athens, and from Plutarch and Syrianus he learnt to comprehend the doctrines of Plato and Aristotle. Afterwards, becoming initiated into the Theurgical mysteries, he was soon made a High Priest of the Universe.

The theological tendency is still more remarkable in Proclus than in Plotinus. He regarded the Orphic poems and the Chaldean oracles as divine revelations, and, therefore, as the real source of philosophy, if properly interpreted; and in this allegorical interpretation consisted his whole system.

'The intelligible forms of ancient poets,
The fair humanities of old religion,
The Power, the Beauty, and the Majesty,
That had her haunts in dale, or piny mountain,
Or forest by slow stream, or pebbly spring,
Or chasms and wat'ry depths; all these have vanish'd,

They live no longer in the faith of reason!
But still the heart doth need a language, still
Doth the old instinct bring back the old names.
And to yon starry world they now are gone,
Spirits or Gods that used to share this earth
With man as with their friend.'*

To breathe the breath of life into the nostrils of these defunct deities, to restore the beautiful Pagan creed, by interpreting its symbols in a new sense, was the aim of the whole Alexandrian School.

Proclus placed Faith above Science. It was the only faculty by which The Good, that is to say, The One, could be apprehended. 'The philosopher,' said he, 'is not the priest of one Religion, but of all Religions;' that is to say, he is to reconcile all modes of belief by his interpretations. Reason is the expositor of Faith. But Proclus made one exception: there was one Religion which he could not tolerate, which he could not interpret,—that was the Christian.

With this conception of his mission, it is easy to see that his method must have been eclectic. Accordingly, in making Philosophy the expositor of Religion, he relied upon the doctrines of his predecessors without pretending to discover new ones for his purpose. Aristotle, whom he called 'the philosopher of the understanding,' he regarded as the man whose writings formed the best introduction to the study of wisdom. In him the student learnt the use of his Reason; learnt also the forms of thought. After this preparatory study came the study of Plato, whom he called the 'philosopher of Reason, the sole guide to the region of Ideas, that is, of Eternal Truths. The reader will probably recognize here the distinction between Understanding and Reason, revived by Kant, and so much insisted on by Coleridge and his followers.

Plato was the idol of Proclus; and the passionate disciple thought every word of the master an oracle; he discovered everywhere some hidden and oracular meaning, interpreting the simplest recitals into sublime allegories. Thus the affection of Socrates for Alcibiades became the slender text for a whole volume of mystical exposition.

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* Coleridge, in his translation of the *Piccolomini*.

It is curious to notice the transformations of Philosophy in the various schools. Socrates interpreted the inscription on the temple at Delphi, 'Know thyself,' as an exhortation to psychological and ethical study. He looked inwards, and there discovered certain truths which scepticism could not darken; and he discoursed, says his biographer, on Justice and Injustice, on things holy and things unholy.

Plato also looked inwards, hoping to find there a basis of philosophy; but his 'Know thyself' had a different signification. Man was to study himself, because, by becoming thoroughly acquainted with his mind, he would become acquainted with the eternal Ideas of which sense awakened Reminiscence. His self-knowledge was Dialectical, rather than Ethical. The object of it was the contemplation of eternal Existence, not the regulation of our worldly acts.

The Alexandrians also interpreted the inscription; but with them the Socratic conception was completely set aside, and the Platonic conception carried to its limits. 'Know thyself,' says Proclus, in his commentary on Plato's *First Alcibiades*, 'that you may know the essence from whose source you are derived. Know the divinity that is within you, that you may know the divine One of which your soul is but a ray. Know your own mind, and you will have the key to all knowledge.' These are not the words of Proclus, but they convey the meaning of many pages of his mystical dialectics.

We are struck in Proclus with the frank and decided manner in which Metaphysics is assumed to be the only possible science; we are struck with the *naïve* manner in which the fundamental error of metaphysical inquiry is laid open to view, and presented as an absolute truth. In no other ancient system is it stated more nakedly. If we desired an illustration of the futility of metaphysics we could not find a better than is afforded by Proclus, who, be it observed, only pushed the premisses of others to their rigorous conclusions.

He teaches that the hierarchy of ideas, in which there is a gradual generation from the most abstract to the most concrete, exactly corresponds with the hierarchy of existences, in which there is a constant generation from the most abstract (Unity) to the most concrete (phenomena): so that the relations which these ideas bear to each other, the laws which subordinate one to the other—in a word, the forms of the nomenclature of human conceptions—express the real causes, their action, their combinations; in fact, the whole system of the universe.*

This is frank. The objection to the metaphysician has been that he looks *inwards* to discover that which lies *without* him, hoping, in his own conceptions of that which he is seeking to know, to find the thing he seeks. The 'philosophers of the Understanding' aver that to analyze your mind is to learn the nature of your mind: nothing else. Proclus boldly assumes that to know the nature of your own mind is to know the whole universe. This is at least consistent. But one might reasonably ask how this knowledge is to be gained? not simply by looking inwards, or else all philosophers would have gained it; not even by meditation. How then? Listen:—

'Mercury, the Messenger of Jove, reveals to us Jove's paternal will, and thus teaches us science; and, as the author of all investigation, transmits to us, his disciples, the genius of invention. The Science which descends into the soul from above is more perfect than any science obtained by investigation; that which is excited in us by other men is far less perfect. Invention is the energy of the soul. The Science which descends from above fills the soul with the influence of the higher Causes. The Gods announce it to us by their presence and by illuminations, and discover to us the order of the universe.'

Of course the mystic who had revelations from above, dispensed with the ordinary methods of investigation; and here again we see Proclus consistent, though consistent in absurdity.

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* This is also the doctrine of HEGEL.

CHAPTER IV.

CONCLUSION OF ANCIENT PHILOSOPHY.

WITH Proclus the Alexandrian School expired; with him Ancient Philosophy ceased. Religion, and Religion only, seemed capable of affording satisfactory answers to the questions which perplexed the human race, and Philosophy was reduced to the subordinate office which the Alexandrians had consigned to the Aristotelian Logic. Philosophy became the servant of Religion, no longer reigning in its own right.

Thus was the circle of endeavour completed. With Thales, Reason separated itself from Faith; with the Alexandrians, the two were again united. The centuries between these epochs were filled with helpless struggles to overcome an insuperable difficulty.

The difference is great between the childlike question of the Ionian thinker, and the answer of the Alexandrian mystic: and yet each stands upon the same ground, and looks out upon the same troubled sea, hoping to detect a shore, ignorant that all Philosophy

> 'is an arch wherethrough
> Gleams that untravelled world, whose margin fades
> For ever and for ever as we move.'

But, to the reflective student who thus sees these men, after centuries of endeavour, fixed on the self-same spot, the Alexandrian straining his eager eyes after the same object as the Ionian, and neither within the possible range of vision, there is something which would be unutterably sad, were it not corrected by the conviction that these men were fixed to one spot, because they had not discovered the only true pathway, a pathway which those who came after them securely trod.

Still, the spectacle of human failure, especially on so gigantic a scale, cannot be without some pain. So many hopes thwarted, so many great intellects wandering in error, are not to be thought of without sadness. But it bears a lesson which we hope those who have followed us thus far will not fail to read: a lesson on the vanity of ontological research; a lesson which almost amounts to a demonstration of the impossibility of the human mind ever compassing those exalted objects which its speculative ingenuity suggests as worthy of its pursuit. It points to that profound remark of Auguste Comte, that there exists in all classes of our investigations a constant and necessary harmony between the extent of our real intellectual wants, and the efficient extent, actual or future, of our real knowledge.

But these great thinkers, whose failures we have chronicled, did not live in vain. They left the great problems where they found them: but they did not leave Humanity as they found it. Metaphysics might be still a region of doubt; but the human mind, in its endeavours to explore that region, had learnt in some measure to ascertain its weakness and its force. Greek Philosophy was a failure; but Greek Inquiry had immense results. Methods had been tried and discarded; but great preparations for the real Method had been made.

Moreover Ethics had become elevated to the rank of a science. In the Pagan Religion morality consisted in obeying the particular Gods: to propitiate their favour was the only needful art. Greek Philosophy opened men's eyes to the importance of human conduct—to the importance of moral principles, which were to stand in the place of propitiations. The great merit of this is due to Socrates. He objected to propitiation as impious: he insisted upon moral conduct as alone guiding man to happiness here and hereafter.

But the Ethics of the Greeks were at the best narrow and egoistical. Morality, however exalted or comprehensive, only seemed to embrace the Individual; it was extremely incomplete as regards the Family; and had scarcely any suspicion of what we call Humanity. No Greek ever attained the sublimity of such a point of view. The highest point he could attain was to conduct *himself* according to just principles; he never troubled himself with others. By the introduction of Christianity, Ethics became Social, as well as Individual.

So far advanced are we in the right direction—so earnestly are we engaged in the endeavour to perfect Social as well as Individual Ethics—that we are apt to look down upon the progress of the Greeks as trivial; but it was immense, and in the history of Humanity must ever occupy an honourable place.

Ancient Philosophy expired with Proclus. Those who came after him, although styling themselves philosophers, were in truth religious thinkers employing philosophical formulæ. No one endeavoured to give a solution of the three great problems: Whence came the world? What is the nature of God? What is the nature of human knowledge? Argue, refine, divide and subdivide as they would, the religious thinkers only used Philosophy as a subsidiary process: for all the great problems, Faith was their instrument.

The succeeding Epochs are usually styled the Epochs of Christian Philosophy; yet Christian Philosophy is a misnomer. A christian may be also a philosopher; but to talk of Christian Philosophy is an abuse of language. Christian Philosophy means Christian Metaphysics; and that means the solution of metaphysical problems upon Christian principles. Now what are Christian Principles but the Doctrines *revealed* through Christ; revealed because inaccessible to Reason; revealed and accepted by Faith, because Reason is utterly incompetent?

So that metaphysical problems, the attempted solution of which by Reason constitutes Philosophy, are solved by Faith, and yet the name of Philosophy is retained! But the very groundwork of Philosophy consists in reasoning, as the groundwork of Religion is Faith. There cannot, consequently, be a Religious Philosophy: it is a contradiction in terms. Philosophy may be occupied about the same problems as Religion; but it employs altogether different criteria, and depends on altogether different principles. Religion may, and should, call in Philosophy to its aid; but in so doing it assigns to Philosophy only the subordinate office of illustrating, reconciling, or applying its dogmas. This is not a Religious Philosophy; it is Religion *and* Philosophy, the latter stripped of its boasted prerogative of deciding for itself, and allowed only to employ itself in reconciling the decisions of Religion and of Reason.

From these remarks it is obvious that our History, being a narrative of the progress of Philosophy only, will not include any detailed account of the so-called Christian Philosophy, because that is a subject strictly belonging to the History of Religion.

Once more we are to witness the mighty struggle and the sad defeat; once more we are to watch the progress and development of that vast but ineffectual attempt which the sublime audacity of man has for centuries renewed. Great intellects and great hopes are once more to be reviewed; and the traces noted which they have left upon that desert whose only semblance of vegetation is a mirage,—the desert without fruit, without flower, without habitation, arid, trackless, and silent, but vast, awful, and fascinating. To trace the footsteps of the wanderers—to follow them on their gigantic journeys—to point again the moral of

> 'Poor Humanity's afflicted will
> Struggling in vain with ruthless destiny,'

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